

University College Dublin REPORT OF THE PRESIDENT SEPTEMBER 2010 – AUGUST 2011

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

September 2010 - August 2011

For presentation to the Governing Authority of University College Dublin, National University of Ireland, Dublin at its meeting on 13 December 2011.

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- Images on page 1 1. President Clinton addresses students at the UCD Clinton Institute for American Studies. He answered questions on the growing threat to the Northern Ireland peace process from dissident republicans, US intervention in the Balkans in the 1990s, and globalisation and its impact on the US as well as on Ireland
- 2. An Taoiseach, Enda Kenny TD, delivers the keynote address at the UCD Institute for British-Irish Studies Annual Conference, May 2011
- 3. Mary Costigan (right) from Laois helps Aliyah Zambri from Malaysia into her white coat at the clinical robing ceremony for medical students at UCD. Mary and Aliyah were two of the 240 students who received their white coats from the UCD School of Medicine in early 2011, signifying their progression to the clinical stage of their medical degrees. 80 of the students will return to Penang Medical College in Malaysia, where they will complete their medical training
- 4. A portrait of UCD's most famous graduate, James Joyce (BA 1902), was put on view for the first time as the university celebrated its Bloomsday conferrings and the awarding of the Ulysses Medal. The painting, by Robert Ballagh, hangs in the UCD O'Reilly Hall, and was funded through the generosity of the UCD Foundation
- 5. Helena Carlyle, Rathdown School, assesses an engineering stress analysis framework at the UCD Open Day
- 6. The President of Ireland, Mary McAleese, delivered the 2010 Newman Lecture *Reimagining our Universities for the 21st Century.* She called for a more holistic approach to reimagining Irish society and emphasised the fundamental role of universities within this: "Newman's words are a reminder that universities with have responsibility, not just for creating and disseminating new knowledge, but for distilling the previous wisdom gained from both human failure and success into tools for the formation of tomorrow's well-educated citizens"
- 7. H.E. Mr Li Changchun, Member of the Standing Committee of Political Bureau of the Central Committee of the Communist Party of China, meeting students during an official visit to UCD in September 2010
- 8. Pictured at UCD Bloomsday conferring, poet Seamus Heaney (left) who was presented with the university's highest award, the Ulysses Medal, and Professor Declan Kiberd. During his citation for the poet, Professor Kiberd said: "If poetry really is news that stays news, then the events of our lives, both great and small, seem incomplete without Seamus Heaney's exploration of them"





### Contents

Introduction by Dr Hugh Brady, UCD President	2
Colleges	5
UCD College of Arts and Celtic Studies	6
UCD College of Business and Law	8
UCD College of Engineering, Mathematical	
and Physical Sciences	10
UCD College of Human Sciences	12
UCD College of Life Sciences	14
UCD Organisational Structure	16
Education	17
Profile of Student Body	18
Fostering Early and Lasting Student Engagement	18
Strengthening and Enhancing Academic Disciplines	10
	20
and Programmes	20
Stimulating Creativity, Innovation,	20
Entrepreneurship and Active Citizenship	20
Growing and Developing Graduate Education	21
Internationalising the Student Experience	21
Widening Participation and Supporting	
	22
Teaching, Learning Innovation and Academic	
Development	22
Quality	22
Research	23
Research Funding	24
Key Research, Metrics and	
Performance Indicators	26
Major Research Themes - Earth Sciences,	
Energy and the Environment	26
Major Research Themes - Global Ireland	27
Major Research Themes - Health and	
Healthcare Delivery	28
Major Research Themes - Information,	
Computation and Communication	31
Innovation & Partnership	33
Maximising Impact of UCD's Knowledge	
and Expertise	34
Fostering Innovation and Entrepreneurship at	
Third and Fourth Levels	36
Fostering Innovation Amongst UCD Staff	36
Student Experience	37
Student Administrative and Support Services	38
Sports, Societies and Other Activities	40
Enabling Foundations	41
Finance	42
Human Resources	43
Library, Information and Knowledge Management	44
University Relations	45
Development and Alumni Relations	46
Capital Development	48
Awards and Honours	49



## Introduction by Dr Hugh Brady, UCD President

#### Vision

This is the second year of the UCD Strategic Plan to 2014 *Forming Global Minds*. The Strategic Plan is an opportunity to advance our university, further build our reputation and contribute to Ireland's recovery. We are building on our excellence in teaching and research, and placing greater emphasis on the impact which these have on the economic, environmental, social and political life of the nation. We are striving increasingly through our innovation agenda to translate our knowledge and expertise for the benefit of Ireland's economy, culture and society. UCD's mission is to support and facilitate the Government's goal for sustainable economic renewal and help build Ireland's smart economy.

#### **Key Initiatives and Successes**

The prestigious Times Higher Education Rankings positioned UCD within the top 1% of higher education institutions in the world. Retaining this position is a considerable achievement for UCD given the well-documented strains on the higher education system. Once again our staff have shown that UCD can compete with the top universities in the world.

#### Education

Despite the economic turmoil I am delighted to report that UCD's student population has increased by 2%. The increased number of graduate and international students is particularly welcome: these now represent 29% and 19% of the UCD student population respectively. During the life of this Strategic Plan, our ambition is to increase these numbers further, as well as the number of non-traditional students.

Work has also continued on the refinement of academic structures. The latest refinement, which will see the creation of four new colleges, better aligns major disciplines with their undergraduate and graduate programmes. It will also improve programme visibility for potential students, industry and government, and enable UCD to engage fully with the national innovation agenda.

In March 2011, we welcomed the Irish Universities Quality Board (IUQB) who commissioned a team of six independent national and international experts to review UCD. This is part of the institutional review of Irish universities, and UCD received a very positive report, affirming that we have comprehensive quality assurance processes at institutional level and within the core activities of teaching and research.

#### Research

UCD remains a national leader in research funding with externally funded research contracts signed during the year increasing to €103.1 million, which was more than double the value of the previous financial year. Although this represents a significant improvement, funding levels are still behind the peaks achieved in the 2007-2009 period. This is due to the low levels of national funding support available for research. On the positive side, UCD researchers have successfully identified and targeted EU funding opportunities with the total received increasing by 92% to €18.8 million.

#### Innovation

The *Innovation Academy* was formally opened in November 2010. This is the educational centrepiece of the *TCD/UCD Innovation Alliance*, and it has responsibility for providing an environment which fosters creativity, innovation and entrepreneurial thinking. September 2011 will see a major scale-up of the Academy's programmes as over 200 UCD and TCD students enter the Academy through the Programme for Research in Third Level Institutions (PRTLI).

## "The prestigious Times Higher Education Rankings positioned UCD within the top 1% of higher education institutions in the world"

#### **Building Alliances**

In addition to the ongoing successes of the *TCD/UCD Innovation Alliance*, we are building other important partnerships. I am delighted that we have entered into important strategic alliances with the National College of Art and Design (NCAD) and the Institute of Public Administration (IPA), while at the same time strengthening our relationship with the Institute of Bankers (IoB). NCAD and IPA were Recognised Colleges of the NUI, but decided that their future development would be best served by a formal alliance with a major university. The UCD Governing Authority resolved to designate IPA and NCAD as Recognised Colleges from 1 September 2011.

#### Internationalisation

An international student mix brings multiple benefits for UCD and Ireland. Our university enjoys a vibrant combination of nationalities and cultures, where students from around the world exchange ideas and learn from each other. On a broader scale, communities and the economy also benefit from this student body in terms of research, job creation and economic ties, both nationally and internationally. International students are also an important source of non-exchequer income. Our objective is to increase our international student population to 25% of the student body, to include a non-EU student population of 15%.



## "Thanks to the heroic work of staff, UCD has managed to absorb tens of millions of funding cuts while expanding student numbers and maintaining the quality of our academic programmes. We are also continuing to raise non-exchequer income from fee-paying courses, commercial activity and philanthropic fundraising efforts"

During 2010/11, we enhanced our comprehensive range of campus support services with the opening of the UCD Global Lounge, a dedicated space for international students and Irish students planning to volunteer or study abroad.

UCD's Irish students also have opportunities to study overseas, and our exchange programmes with other universities have continued to grow, with an increase of 10% in the numbers benefiting from the European Erasmus programme in 2010/11.

#### **Finances**

The financial challenges facing the university sector will require considerable effort and ingenuity over the coming year. With further cuts expected it will be important that we continue to look for more efficiencies and additional revenue streams. I am grateful to the many schools that have already significantly boosted their income by increasing their number of postgraduate and international students, and to the various support units that have supported these efforts. Thanks to the heroic work of staff, UCD has managed to absorb tens of millions of funding cuts while expanding student numbers and maintaining the quality of our academic programmes. We are also continuing to raise non-exchequer income from fee-paying courses, commercial activity and philanthropic fundraising efforts. However, total State funding per EU undergraduate student has been cut by 33% since 2008. This situation is clearly untenable. We have engaged with Government to seek a resolution of the problem.

#### **Campus development**

UCD's capital development plans continue to progress. Our fundraising activity has ensured that our ambition of developing academic, residential and leisure facilities befitting a world-class university will shape the future of the Belfield campus.

Phase one of the UCD Science Centre will officially open in September 2011. Already €20 million has been raised in non-exchequer funds for phase two, which will comprise new and refurbished scientific facilities for 2,500 undergraduate and postgraduate science students, and 2,000 scientific investigators. When all three phases of the UCD Science Centre are complete, it will be the largest capital investment in science in the history of the Irish State. Other key projects include the UCD Sutherland School of Law, construction of which will commence in early 2012. This will create modern and dynamic accommodation for the learning and practice of legal skills, and will benefit students, academics and the wider legal profession. By summer 2012, the Student Learning, Leisure and Sports Complex should be complete. This mostly student funded state-of-the-art facility will cater for a diverse range of student learning and leisure activities and form an integral part of UCD's mission to deliver a holistic educational experience.

#### Conclusion

UCD has benefited greatly from the guidance and experience of the Governing Authority under the chairmanship of Dermot Gallagher. I am indebted to them for their hard work, advice and commitment, which has played a major role in helping us work towards the realisation of UCD's strategic vision.

Despite its difficulties, the academic year 2010/11 was another highly successful year for UCD in its mission of advancing knowledge, pursuing truth and fostering learning. As set out in *Forming Global Minds*, we are committed to service through excellence in education, research and innovation. This report sets out how we are delivering on that commitment.

Hugh R. Brady

Hugh Brady President



## **COLLEGES**

In a financial environment that remains both difficult and unsettled, UCD's five academic colleges and 34 schools continue to build on the successes achieved in previous years. Over the period of the Report, colleges have looked to the future and adapted and refined their structures and offerings successfully to grasp the opportunities and meet the challenges that lie ahead.

## **CONTENTS**

UCD College of Arts and Celtic Studies	6
UCD College of Business and Law	8
UCD College of Engineering,	
Mathematical and Physical Sciences	10
UCD College of Human Sciences	12
UCD College of Life Sciences	14
UCD Organisational Structure	16

### **UCD College of Arts and Celtic Studies**

#### Strategic plan

Despite the difficult funding conditions of the last year, the college has addressed key objectives under the UCD Strategic Plan, most notably in the areas of teaching and learning, and internationalisation. The planning for the launch of peer mentoring for new students in the 2011 BA Programme, in conjunction with the UCD College of Human Sciences, was completed. This will be a formidable undertaking that requires the recruitment and training of 200 volunteer student mentors.

Planning for the Creative and Performing Arts strand of UCD's *Ad Astra Academy*, to complement the Academic and Elite Athlete strands, was also completed. The initial cohort of talented actors, singers and instrumentalists has been recruited and their presence will enhance UCD's choral and orchestral ensembles. The launch of the new BA programme in liberal arts and sciences, in 2011/12, will be targeted at the US market. This offers an exciting opportunity for the college to recruit a new group of international students and showcase the calibre of the faculty and programmes on offer.

#### **Developments to date**

Former US President Bill Clinton addressed students and staff when he visited the UCD Clinton Institute for American Studies on the Belfield campus, in September 2010.

The pilot Drop-in Writing Clinics, directed by Dr Fionnuala Dillane (UCD School of English, Drama and Film), opened in January 2011. The clinics were supported by a President's Teaching Award, with over 80 undergraduate students from seven different schools receiving one-to-one tuition. Student response has been overwhelmingly positive and the college anticipates that the clinics will become a key element in its portfolio of student supports. Ireland Uncovered, a new elective module designed to give international students an introduction to Ireland's history, culture and society, has also proved a resounding success.

Professor Jim Collins, University of Notre Dame, USA, spent a busy week at the UCD School of English, Drama and Film, in February. He taught seminars in film and met graduate students.

www.ucd.ie/artsceltic

His visit is the first in a series of short bi-lateral visits between the college and Notre Dame faculty designed to promote teaching and research links between the two institutions.

Research highlights include the securing of two grants from the Mellon Trust, for the UCD School of History and Archives: Dr Alexander Wilkinson secured a grant for his Iberian Books/ Libros Ibéricos project; and Dr John McCafferty and Dr Edel Bhreathach, UCD Mícheál Ó Cléirigh Institute, secured the other. Professor Kathleen James-Chakraborty, UCD School of Art History and Cultural Policy, and Professor Jean-Michel Picard, UCD School of Languages and Literature, were elected to the Royal Irish Academy. Dr Aude Doody, UCD School of Classics, was awarded the Selma V Forkosch Prize for authoring the best article published in the Journal of the History of Ideas in 2009. UCD Archives has taken custody of over 10,000 RTÉ radio scripts, dramas and associated material, and archiving is underway. The collection will significantly enhance scholarship relating to Irish culture from the 1930s to the 1980s.

The intellectual life of doctoral and post-doctoral scholars has remained vibrant: the UCD Schools of Archaeology and Music secured Marie Curie Fellowships; 10 Irish Research Council for the Humanities and Social Sciences (IRCHSS), and three year CARA Fellowships were awarded to scholars at UCD; and, with modest seed-funding from the college graduate school, graduate students organised seven conferences which attracted distinguished international speakers, on topics as diverse as *Warfare in Antiquity; Diaspora Strategies;* and *Beckett and the 'State' of Ireland*.

At the end of the academic year, Professor Mary Daly ended her six years as College Principal. The college and the university is indebted to Mary for her inspirational leadership during this transformational period. Mary will continue to play a leadership role in Irish higher education as a member of the Higher Education Authority. She will be succeeded by Professor Maeve Conrick, Dean of Arts, UCC.

#### 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: Mr 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 Dr John Loughman **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 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

\*As of 1 September 2010





- 1. Cecilia Bartoli, the world-leading mezzo-soprano, was conferred with an Honorary Degree of Doctor of Music, in recognition of her contribution to musical performance and research. She is pictured with Desmond Earley, Artistic Director, UCD Choral Scholars (left), Professor Harry White, UCD School of Music (right) and the UCD Choral Scholars
- 2. Pictured (I-r) are UCD President, Dr Hugh Brady, and RTE Director General, Cathal Goan, examining written correspondence between Samuel Beckett and Hilton Edwards in 1961. RTÉ and UCD have formed a partnership for the long-term preservation of the RTÉ Corporate Written Archives
- 3. A poster promoting the *Samuel Beckett & the 'State'* of *Ireland* Conference, which was hosted by the UCD Humanities Institute of Ireland in July 2011 and funded by the UCD Arts and Celtic Studies Graduate School
- 4. Professor Mary E Daly, Principal, UCD College of Arts and Celtic Studies, greets President Bill Clinton during his visit to the UCD Clinton Institute for American Studies, where he addressed students and staff and was presented with the Ulysses Medal
- 5. During the UCD Bloomsday celebrations a portrait by Robert Ballagh of UCD's most famous graduate James Joyce (BA 1902) was unveiled. The celebrations also included a public conversation between Robert Ballagh (left) and Professor Declan Kiberd, UCD School of English, Drama and Film. The portrait was funded through the generosity of the UCD Foundation
- 6. The UCD Irish Virtual Research Library and Archive (IVRLA) was formally launched as part of the Innovation Dublin festival. Pictured at the launch are (I-r, back row): Dr Marc Caball, Director, Humanities Insitute of Ireland; Dr John Howard, University Librarian; and Eamon de Valera; (middle row) Dr Dervila Layden, IVRLA; Professor Gerardine Meaney, UCD College of Arts and Celtic Studies; and UCD President, Dr Hugh Brady; (front row) Audrey Droha; and Professor Mary E Daly, Principal of UCD College of Arts and Celtic Studies
- 7. Claudia Sabato receives the annual Professor Ní Fhaircheallaigh commemorative medal for best creative or discursive written work in Irish, from Professor Liam Mac Mathúna (left), Head of the UCD School of Irish, Celtic Studies, Irish Folklore and Linguistics, and Dr Caoimhín Mac Giolla Léith, Head of Subject, Modern Irish





### UCD College of Business and Law

#### **Strategic plan**

While both of the college's schools operate independently, they share a strategic commitment to improving the quality of programmes, student recruitment and research. They are also dedicated to enhancing the diversity of students and faculty, both globally and in terms of experience. The two schools see increasing non-exchequer revenues as a key goal. Through the quality of their graduates, their research and their support for, and involvement in, national initiatives, the Schools of Business and Law are committed to contributing to national recovery.

In that context, and given Ireland's dependence on global markets as an engine of economic recovery, UCD School of Business, as Ireland's global business school, is strongly focused on retaining both its international accreditations and its position in the world rankings as recognised quality measures in a globalising business education market.

For UCD School of Law, contributing through the key research themes of human rights and criminology, European law and regulatory governance is a key objective.

#### **Developments to date**

Student numbers, especially at graduate level, continued to grow despite funding difficulties for students in a weak economy, with intense competition for the best students.

At undergraduate level in the UCD School of Business the new BComm curriculum, which further develops students' independent learning, and the BComm International, which had significant changes to the language pathways, saw significantly improved demand. At graduate level, the MBA curriculum has been enriched with the introduction of a personal professional development programme.

The UCD School of Law reformed and strengthened its undergraduate curriculum. New first year modules offer a more conceptual, challenging and critical introduction to key issues in contemporary legal systems, and changes in later years include the introduction of new clinical modules.

Following a rigorous re-accreditation review, the Equis accreditation for the UCD School of Business was renewed

for a full five years, maintaining its triple accreditation status. The school is one of less than 50 worldwide with this status and it is Ireland's only internationally accredited school. As a further sign of quality, there was a parallel improvement in the school's positions in the global rankings, boosted by an improvement in its research ranking.

The UCD School of Law was ranked in the world's top 100 law schools by QS World University Rankings. The school's faculty was awarded two important research fellowships: a Houses of the Oireachtas fellowship for Dr Gavin Barrett; and a Harvard Law School Human Rights Fellowship for Ms Suzanne Egan. A UCD team, led by Professor Imelda Maher, took over editorship of the journal *Legal Studies*, the first time its editorship has left the UK.

International enrolments grew to 37% of the UCD Michael Smurfit Graduate Business School's intake, with China a key market. Also in SE Asia, the school launched its first purely online programme in conjunction with its partner, Kaplan.

The UCD School of Business continued to expand its executive education offerings, while retaining important contracts with Bord Bia and Enterprise Ireland. These provide graduates with work in export industries, which is consistent with the school's strategy of actively contributing to Ireland's economic and social recovery. The Law School also won contracts to provide Diplomas in Financial Services for the Law Society, and in Regulatory Governance for the Department of the Taoiseach.

During the year a process was put in place to appoint two new Deans. Towards the end of the academic year, Professor Tom Begley was succeeded by Professor Ciarán Ó hÓgartaigh as Dean of Business. Professor Colin Scott will replace Professor John Jackson as Dean of Law, from 1 September 2011. We thank Tom and John for their exceptional strategic leadership during their terms as deans.

#### UCD College of Business and Law consists of two schools:

College Principal: Professor Thomas Begley

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

\*As of 1 September 2010

## UCD SUTHERLAND SCHOOL OF LAW

www.ucd.ie/law

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## **Detention in the** 'War on Terror'

Can Human Rights Fight Back?

Fiona de Londras





- 1. Peter Sutherland SC turns the sod on the site of the UCD Sutherland Sc turns the sou on the site of the UCD Sutherland Sc turns the sou on the site of the Once completed, the facility will cater for 1,500 students and staff. It will include a Clinical Legal Education Centre and moot court (where students learn how to present cases in a courtroom setting)
- 2. Professor Damien McLoughlin with UCD students (I-r): Sarah Cunningham, Aislinn Marron and Ciara Palmer at the launch of Executive Edge, a one day conference showcasing Executive Education at the UCD School of Business
- 3. Dr Fiona de Londras, UCD School of Law, published a book on human rights and international terrorism, entitled: Detention in the 'War on Terror'
- 4 Honoured as UCD Business Alumni of the Year 2011, were Patrick Kennedy, CEO, Paddy Power (left), and Senator Feargal Quinn, founder of Superquinn. The award is the highest honour UCD School of Business can bestow on a graduate; it recognises alumni who have demonstrated proven leadership skills, notable achievements in business and a significant contribution to the community, in Ireland or abroad
- 5. Minister of State for Trade and Development, Jan O'Sullivan TD (right), meets Vietnamese scholarship students, funded by Ireland Aid, at UCD Michael Smurfit Graduate Business School
- 6. UCD Law graduates celebrate their conferring
- 7. Pictured promoting the Bord Bia Marketing Fellowship programme run by the UCD Michael Smurfit Graduate School of Business are (I-r) Aidan Cotter, CEO Bord Bia; Simon Coveney TD, Minister for Agriculture, Food and Marine and Professor Tom Begley, Principal UCD College of Business with Bord Bia marketing fellow for 2011, Fiona Fitzgerald

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

www.ucd.ie/eacollege www.ucd.ie/science

#### **Strategic plan**

The mission of the UCD College of Engineering, Mathematical and Physical Sciences (EMPS) is to be a leading European engineering and science college, advancing knowledge and fostering innovation in 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.

During the period of the report the college facilitated a restructuring into the UCD College of Engineering and Architecture, with some schools forming part of the UCD College of Science. The College of EMPS will cease to exist as of 1 September 2011.

#### **Developments to date**

Implementation of the UCD Strategic Education Strategy commenced, with a particular focus on first year students. It is aimed at fostering student engagement and stimulating creativity and innovation. Of particular note within the engineering curriculum was the introduction of a core Creativity in Design module. This provides an active-learning engineering experience through which students develop their observation and problem-solving skills, and lateral thinking abilities. As part of the Innovation Dublin 2010 Festival, an exhibition was organised to display selected projects from this first year Creativity in Design module.

The Principles of Scientific Enquiry module was introduced on the science curriculum. Its aim is to expose students to scientific literature and research, and to encourage critical and analytical thinking, teamworking and the development of communication skills.

The first ever graduating class of the Master of Engineering (ME) in Energy Systems programme was conferred in December 2010. This programme prepares graduates to meet the future

engineering, economic and environmental challenges facing the energy systems of developed countries. Inputs to the programme are provided by UCD academics in Mechanical, Electrical, Civil and Chemical Engineering, and from Geological Sciences, Economics and Business Studies (Innovation and Entrepreneurship). A significant research project is a critical component and many of these projects are conducted in collaboration with industry.

Energy Research scholarships, valued at €5,000 each and funded by Veolia Environnement and the Ireland Fund of France, were presented to two UCD Master of Engineering (Energy Systems) students in May, by the French Ambassador to Ireland, H.E. Madame Emmanuelle d'Achon. The scholarships were awarded to the students who presented the best research project proposals, as judged by senior managers at Veolia Environnement and Dalkia in Ireland. Donal Costello and Olivier Neu were named as this year's recipients for their outstanding energy research proposals in the areas of public transportation and dairy manufacturing.

During 2011, Professor Orla Feely led a project to record and present the history of UCD Engineering and Science in the Merrion Street complex, which is now Government Buildings. The building which housed the Royal College of Science for Ireland celebrated its centenary in July 2011, and was marked by a reception, at which An Taoiseach Enda Kenny TD launched the publication, *The Building of the State*, and the supporting website, www.ucd.ie/merrionstreet.

Towards the end of the academic year, Professor Nick Quirke completed his term as College Principal. The college is indebted to Nick for his leadership over his term as principal. Professor Gerald Byrne will take up the Principalship of the new College of Engineering and Architecture, from 1 September 2011.

#### 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

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

Vice-Principal for Teaching and Learning: Dr Amanda Gibney

Vice-Principal for Research and Innovation: Professor Michael Gilchrist

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

\*As of 1 September 2010



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- 1. Pictured at the Innovation Dublin 2010 Exhibition: Creative Solutions by 1st Year Students, were first year Engineering students (I-r): Eimear Nolan, Conor O'Boyle, Patrick Nolan, Aidan O'Boyle and Robert Normile
- 2. At the UCD Foundation Day Dinner, Dr Eddie O'Connor (left) was honoured with the 2010 Foundation Day Medal, for his outstanding contribution to engineering. Dr O'Connor, CEO of Mainstream Renewable Power, is pictured with former classmate and RTÉ presenter Pat Kenny, who delivered the citation
- 3. Members of the first ever group of 27 students who graduated with the ME (Energy Systems) degree, at UCD conferring, December 2010
- 4. Two ME (Energy Systems) students won Energy Research Scholarships for their outstanding energy research proposals in public transportation and dairy manufacturing. Pictured (I-r) are: Scholarship Winner, Olivier Neu; Liam Connellan, Chairman Veolia Ireland; H.E. Emmanuelle d'Achon, French Ambassador to Ireland; and Scholarship Winner, Donal Costello
- 5. Tian Li (centre), from Beijing University of Technology, is pictured with UCD Biomedical Engineering students Ciaran Hendry (left) and Ian Woods. Ciaran and Ian are now studying at Beijing University of Technology as part of their International Engineering programme
- 6. In recognition of his published research, Professor Gerry Byrne (right), UCD School of Electrical, Electronic and Mechanical Engineering, has become the first Irish recipient of the Frederick W. Taylor Research Medal, awarded by The Society of Manufacturing Engineers (SME). Professor Byrne is pictured receiving the award from Dr Barbara M. Fossum, SME President, 2010
- 7. An Taoiseach, Enda Kenny TD, with Professor Orla Feely, UCD School of Electrical, Electronic and Mechanical Engineering at the launch of the new publication and website, *The Building of the State.* Authors Orla Feely and Clara Cullen followed the contribution of scientists and engineers from the former UCD Merrion Street complex, through world wars, the creation of an independent state, and the development of a technology sector known and respected throughout the world. The publication can be downloaded at www.ucd.ie/merrionstreet

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

#### **Strategic plan**

During the Academic Year 2010/11, the focus of the College of Human Sciences was on the implementation of the UCD Strategic Plan to 2014 *Forming Global Minds*. As part of the college's strategy of internationalisation the College Principal, Professor Brigid Laffan, led a delegation to China in November 2010. The delegation visited leading universities in Hong Kong, Shantou, Beijing, Shenzhen and Shanghai, with the objective of discussing student exchange, student recruitment and research collaboration between the college and China. Particular areas of focus included economics, politics, planning and social policy. There have been return visits to UCD from a number of the Chinese universities and further engagement with China is planned.

#### **Developments to date**

Considerable work was done during the academic year on the evolving strategic partnership between UCD and the Institute of Public Administration (IPA). The focus was on programme and research collaboration between the college and the IPA. UCD has agreed to partner the IPA in delivering the Doctorate in Governance (DGov), which is designed for full-time public servants. The programme is based on block release courses over two years and a major research project for a further two years. The partnership involves a number of the college's schools.

Undergraduate teaching, particularly the transition from school to university, was the subject of extensive consideration during the academic year. The college is committed to ensuring that by the end of the first semester, students are equipped to flourish in a university setting. Students will be heavily mentored in the first semester and a dedicated student engagement officer supports students in their first year. The College of Human Sciences Graduate School continued to attract students in large numbers to master's and PhD programmes. Graduate taught and graduate research students are attracted to programmes due to the college's student centred approach, and these graduates now represent 35% of all students in the college. Feedback remains very positive about their experiences.

During the academic year, the schools within the college held a number of prestigious seminars and conferences. In September 2010, Professor Colette McAuley hosted an international symposium on child well-being, in Dublin Castle. The Symposium was co-sponsored by UCD, the Office of the Minister for Children and Youth Affairs, the Katharine Howard Foundation, and the International Society for Child Indicators.

Also in September, the UCD Social Science Research Centre (SSRC) hosted a seminar on the volume *Mobile Lives*, coauthored by Professor Anthony Elliott, Flinders University, and UCD visiting professor, and Professor John Urry, Distinguished Professor of Sociology at Lancaster University.

In March, the UCD School of Social Justice hosted a joint two day conference with the Sturm College of Law, University of Denver, on *Creating Change: Feminism, the University and Society.* The 2011 Agnes Cuming Lectures in Philosophy were also delivered over two days in March, by Professor Terrence Irwin, Professor of Ancient Philosophy, Keble College Oxford. His lectures were entitled *Love Your Neighbour as Yourself*.

At the end of the academic year, Professor Brigid Laffan ended her six years as College Principal. Brigid is a dynamic and inspirational leader who effortlessly combined her role as College Principal with important national leadership roles, most notably during the lead up to the second Lisbon referendum. She will be succeeded by Professor Brian Nolan, Professor of Public Policy.

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

Principal: Professor Brigid Laffan Deputy Principal: Professor Ben Tonra Director of Graduate School: Dr Jos Elkink

UCD School of Applied Social Science Head of School Professor Brian Nolan

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 Zorica Nedovic-Budic

UCD School of Information and Library Studies Head of School Professor Diane Sonnenwald

UCD School of Philosophy Head of School Professor Maeve Cooke UCD School of Politics and International Relations Head of School Professor David Farrell

Vice-Principal for Teaching and Learning: Dr Barbara Dooley

Vice-Principal for Research and Innovation: Professor Richard Sinnott

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

\*As of 1 September 2010







- 1. John Bosco Conama became the first deaf person to be awarded a PhD in Ireland, after completing his research in the Equality Studies Centre, in the UCD School of Social Justice. The research, which was supported by an NDA scholarship involved a comparative analysis of the status of Deaf Sign languages in Finland and Ireland. He is pictured with Professor Kathleen Lynch and UCD President, Dr Hugh Brady
- 2. An Taoiseach, Enda Kenny TD, meets UCD Politics students before his keynote address at the UCD Institute for British-Irish Studies Annual Conference, May 2011
- 3. At the launch of *Karl Rahner, Theologian for the Twentyfirst Century*, edited by Dr Pádraic Conway, Director of the UCD International Centre for Newman Studies, were (I-r): Professor Emeritus Seán Freyne, Trinity College Dublin; Dr Pádraic Conway; and Dr Fáinche Ryan, Mater Dei Institute
- 4. Dr Brendan Halligan and Professor Brigid Laffan, pictured at Dr Halligan's honorary conferring, December 2010. According to Professor Laffan, Principal, UCD College of Human Sciences, who gave the citation, Dr Halligan transformed the Labour Party from introspection to internationalism, bringing it into the Socialist International and the EEC/EU Social Democratic movement
- 5. Eighteen original maps of Ireland, dating from the 1650s to the 1950s, held by the UCD School of Geography, Planning and Environmental Policy were put on public display at Newman House in late 2010. Pictured is an estate map, produced in the first half of the nineteenth century showing a portion of the Belfield campus which comprises Belfield House and the surrounding lands



### UCD College of Life Sciences

#### **Strategic plan**

Members of the College of Life Sciences are key contributors to two of UCD's four major research themes: Earth Sciences, Energy and the Environment; and Health and Health Care Delivery.

In undergraduate and graduate education, the college strives to take advantage of its broad expertise to offer students programmes that are informed by internationally recognised current research and innovation.

During the period of the report the College of Life Sciences facilitated the restructuring of the college, into the UCD College of Agriculture, Food Sciences and Veterinary Medicine, and the UCD College of Health Sciences. Additionally, some schools will form part of two further entities: the UCD College of Science, and the UCD College of Engineering and Architecture.

The College of Life Sciences will cease to exist as of 1 September 2011. The objective of this transition is to align major disciplines and undergraduate and graduate programmes more successfully, improve programme visibility for potential students, industry and Government, and support UCD's engagement with the national innovation agenda.

#### **Developments to date**

The year was heavily influenced by national and international economic turbulence. The College of Life Sciences worked to increase income and reduce net direct costs by 5%, to €64.5 million, from 2009/10 to 2010/11. The latter could only be achieved by not replacing staff who left. A 3% increase in student numbers, to 7,449 full time student equivalents, paired with this reduction in overall staff numbers, increased academic workload extensively; successfully coping with these challenging circumstances reflects outstanding dedication and leadership by the staff of the seven schools. Overall, student numbers have increased each year since the College of Life Sciences was formed six years ago, with a total increase of 25%.

www.ucd.ie/agfoodvet www.ucd.ie/chs www.ucd.ie/eacollege www.ucd.ie/science

Newly signed research contracts for Life Sciences' schools in 2010/11 have increased by approximately 60% on 2009/10. They are expected to realise close to €50 million. This is a remarkable staff performance. The college has generated €250 million in externally funded research during the last five years.

In 2010/11 a number of Life Sciences researchers successfully attracted large European Framework grants for health related proposals. National recognition for the value of research led to renewed funding being approved for several Science Foundation Ireland (SFI) supported groups and programmes. This funding will ensure the continuation of important interdisciplinary research work, and interactions with other universities and industry. Additionally, principal investigators in the college were highly successful in securing six of only 44 prestigious SFI PI Awards, granted to individual researchers and their groups.

In the area of education, ongoing international partnerships with the USA, and Asian and European countries deepened. High profile achievements were the award of funding for the first Wellcome Trust four year PhD programme outside the UK, and the award of over €6 million under PRTLI for a structured PhD Programme. On the commercial side, researchers attracted several business awards and media interest for their contributions and discoveries.

#### 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 Dr Gethin McBean

UCD School of Chemistry and Chemical Biology Head of School Professor Earle Waghorne UCD School of Medicine and Medical Science Head of School Professor William Powderly

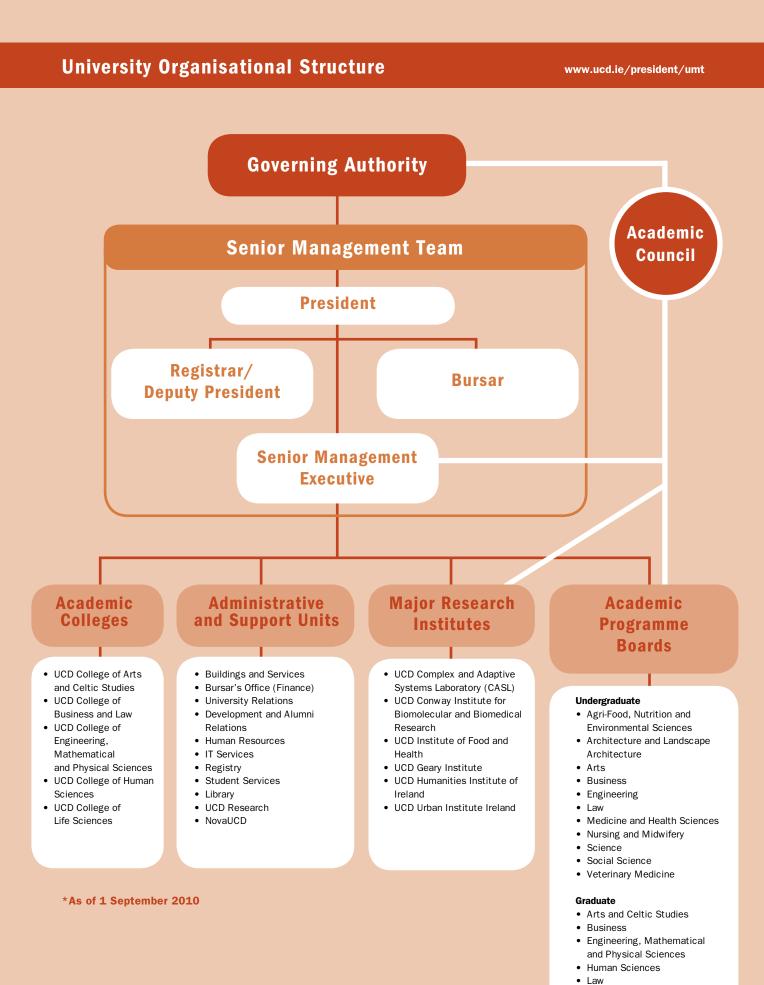
UCD School of Nursing, Midwifery and Health Systems Head of School Dr Martin Mc Namara UCD School of Public Health, Physiotherapy and Population Science Head of School Professor Cecily Kelleher

\*As of 1 September 2010



- 1. Flight control, by Billy Clarke, UCD School of Biology and Environmental Science, shows a hummingbird hovering at flower and was a shortlisted entry in the UCD Images of Research competition. It represents ongoing work in the school which focuses on the study of bird flight and its evolution
- 2. Fluorescent microscopy is used to view immunofluorescent stained tissues and cells, and it plays an important role in scientific research. The photo, a short-listed entry in the UCD Images of Research competition, was taken by Naheda Alkazemi, UCD School of Biomolecular and Biomedical Science
- 3. Dr David Hone, UCD School of Biology and Environmental Science, was one of the scientific team involved in the discovery of the preserved skeletal remains of a previously unidentified theropod dinosaur – the tiny onefingered dinosaur – in a rock formation on the border between Mongolia and China
- 4. Pictured (I-r) at the UCD Open Days, are: Dr Gethin McBean, Head of UCD School of Biomolecular and Biomedical Science and prospective UCD students Maggie Rek, Aoife Wall and Tobi Nabena. Held in the O'Reilly Hall over two days in December 2010, some 10,000 prospective students, parents and families visited the campus
- 5. The image of the nurse Elizabeth O'Farrell, from a panel in the Kevin Barry window at UCD, illuminates a 1929 edition of the *Irish Nurses' Union Gazette*. The Irish Nursing Journals Digitisation Project, at the UCD Irish Centre for Nursing and Midwifery History, is preserving these valuable historical documents and creating an electronic resource that delivers the journals to the widest possible audience
- 6. Pictured (I-r) in front of an advanced mass spectrometry instrument for measuring proteins, are UCD researchers Professor Steve Pennington and Dr Ben Collins, of the UCD School of Medicine and Medical Science, and UCD Conway Institute. Dr Collins was awarded an Agilent Newman Fellowship. This research has enabled Professor Pennington to continue to develop and expand his own work on prostate cancer proteins by attracting significant research awards from the Health Research Board and Irish Cancer Society
- 7. Pictured speaking at the UCD Agricultural Science Careers Day, in February 2011, is CEO of ARYZTA, Mr Owen Killian. Twenty seven employers attended the event to meet the next generation of Agricultural Science graduates





Life Sciences



## **EDUCATION**

During the second year of the UCD Strategic Plan to 2014 *Forming Global Minds*, an emphasis was placed on developing a range of university-wide initiatives to meet UCD's ambitious strategic objectives. Significant progress was made in areas such as student population diversification; initiatives to foster early and lasting student engagement; formative and summative evaluation of student experience; and engagement to identify aspects for improvement inside and outside the classroom.

## **CONTENTS**

Profile of Student Body	18
Fostering Early and Lasting	
Student Engagement	18
Strengthening and Enhancing Academic	
Disciplines and Programmes	20
Stimulating Creativity, Innovation,	
Entrepreneurship and Active Citizenship	20
Growing and Developing Graduate Education	21
Internationalising the Student Experience	21
Widening Participation and Supporting	
Lifelong Learning	22
Teaching, Learning Innovation and Academic	
Development	22
Quality	22

## **Profile of Student Body**

Despite difficult external economic factors, UCD's total student population grew by a further 2% between 2009/10 and 2010/11. Increases were achieved in all key strategic student population cohorts: graduate students (2% increase), international students (1% increase), and under-represented students (11% increase).

	2010/11			2009/10
	Full-time	Part-time	TOTAL	Total Conferred
Honours Degree	14,535	440	14,975	3,148
Certificate/Diploma	108	1,074	1,182	1,052
Occasional	634	154	788	
Exchange	673		673	
Total Undergraduate	15,950	1,668	17,618	4,200
Doctorate	1,623	120	1,743	268
Master's Research	167	46	213	66
Master's Taught	2,192	1,088	3,280	1,944
Certificate/Diploma	542	1,065	1,067	1,233
Continuing Professional				
Development	-	164	164	
Total Graduate	4,524	2,483	7,007	3,511
UCD Total	20,474	4.151	24,625	7,711

## **Fostering Early and Lasting Student Engagement**

UCD Teaching and Learning have worked with UCD colleagues on initiatives to ensure early student engagement. These include students being supported and equipped with the necessary skills to adapt successfully to UCD's learning environment. Assessment methods have a profound impact on student engagement and a cross-university first year assessment project has reviewed and improved the structure, outcomes, assessment and remediation strategies for incoming students. New teaching resources on engaging and empowering students with assessment are being implemented across different disciplines.

A new first year Arts module has been designed to ensure students develop key independent learning and critical thinking skills. Entitled Learning for Success in University, the module engages students using blended teaching approaches and increased contact time. Central to the module are interactive, online tutorial supports for developing successful study approaches.

Drop-in Writing Clinics were also established in 2010. Ten episodes of the *Focus on First Year* podcast were written and delivered by senior academics and experts. An in-depth research project, Reasons Why Students Leave, is near completion and will provide robust and up-to-date evidence on why students leave university within their first year. The newly appointed BA programme Student Engagement Officer will coordinate the extension of peer mentoring to 1,500 incoming Arts students.





- 1. College Teaching Award recipients for 2010/2011, were (I-r): Dr John O'Sullivan, UCD School of Architecture, Landscape and Civil Engineering, recipient; Dr Alice Feldman, UCD School of Sociology, recipient; Professor Bairbre Redmond, Deputy Registrar, Teaching and Learning; Professor Maurice Boland, Principal UCD College of Life Sciences; Dr Patricia Fitzpatrick, UCD School of Public Health, Physiotherapy and Population Science, recipient; MS Carolin Grampp, UCD School of Business, recipient; and Dr Martin Brady, UCD School of Classics, recipient
- 2. The new UCD Global Lounge is a dedicated space which promotes internationalisation. The Lounge serves two principal purposes: as a friendly and relaxed social space for Irish and International students to meet and interact; and as a dedicated venue for seminars, receptions and other events relating to internationalisation
- 3. Incoming Exchange Students get a taste for the outdoors in Glendalough, Co. Wicklow, April 2011
- 4. The Career Development Centre has been substantially refurbished to create a friendlier and more accessible open plan facility. It supports a full range of career services, events and activities that are broader than ever before
- 5. The first all-Ireland Association of University Administrators (AUA) Conference was held in southern Ireland, in May 2011. It was attended by approximately 110 university administration staff from north and south of the border, as well as Great Britain. The number included 70 UCD staff, some of whom are pictured with UCD President, Dr Hugh Brady. The President sponsored 18 UCD administrative staff members to attend the conference who would not normally have access to a conference fund
- 6. Mature Student Jones Orock, second year Science, and Margaret Lacey, who is studying for a Master's of Science in Equality Studies, were photographed as part of a campaign to raise awareness of the different access routes to UCD and the supports available

## **Strengthening and Enhancing Academic Disciplines and Programmes**

In 2011, UCD became the first Irish university to rollout a system for collecting online student feedback for all undergraduate and graduate taught modules. This new process for collecting and responding to student feedback proved timely in light of the teaching and learning recommendations for such a system in the *National Education Strategy to 2030* (Hunt Report). A new webbased module enhancement instrument was also developed, supporting UCD's holistic approach to module design and delivery review, including oversight of module descriptors, registration data, student module feedback and grade distribution data. 2011/12 will see module enhancement become an annual review process and a practical implementation of UCD's quality assurance approach.

To facilitate improving UCD's understanding of how students experience their time in UCD, the internationally benchmarked National Student Survey of Engagement (NSSE), was introduced in spring 2011. The results will be available in autumn 2011. A major thematic review of academic supports for students was completed in 2010/11. Using a substantive self-assessment review of existing supports, an international review group acknowledged and praised the quality of the academic services that assist UCD students in reaching their academic potential. The group also advised on future expansion of these services and greater coordination of all academic supports.

## Stimulating Creativity, Innovation, Entrepreneurship and Active Citizenship

The UCD Career Development Centre helps students secure employment and make a contribution to Ireland's economic recovery and development. This is achieved by encouraging them to be active UCD citizens, to make a difference to the lives of others, and to demonstrate drive, determination and commitment to personal and career development.

During the year the Centre was repositioned to contribute to teaching and learning and the wider student experience. It was also substantially refurbished, creating a friendlier, open plan facility which supports a full range of career services, events and activities that are broader than ever before. The Centre has extended opening hours and offers career fairs, graduate recruitment presentations by leading employers and enhanced access to one-to-one advice.

In addition to its core activities, a new range of personal and career development modules were delivered. These

carry up to five ECTS credits each. A series of non-accredited education/industry partnerships, including a week long corporate finance study visit to the City of London, also took place. To support academic colleagues the Centre produced a video showcase on integrating career-related activities into the academic curriculum: episode six of the UCD Teaching and Learning *Focus on First Year* podcast is entitled: *Future Fit: Engaging and Developing From Day One.* 

## **Growing and Developing Graduate Education**

UCD Graduate Studies launched a new, enhanced web search facility for all graduate programmes. This was developed in collaboration with UCD's Management Services Unit and is accessible via the Graduate Studies website www.ucd.ie/ graduatestudies. Potential students can now search graduate programmes by keyword, discipline, college and conversion course categories. This increased functionality provides greater flexibility for students to find the programme, award type and study option best suited to them.

UCD successfully attracted funding for two new graduate certificate programmes, in Information and Communications Technology, and Biopharmaceutical and Pharmaceutical Sciences. These are offered to unemployed graduates under the HEA *Springboard Initiative*. All UCD *Springboard* students take a College Knowledge induction programme and a Future Fit careers module.

The Research Supervisor Support and Development Programme, run by UCD Graduate Studies, was launched in November 2010 as UCD's first cross-disciplinary programme. The three workshops, entitled *Understanding the Research Process, Research Skills Development,* and *Thesis Preparation and Examination,* provide a supportive, interactive and informative framework for new and inexperienced research supervisors. UCD is collaborating with the National Academy for Integration of Research, Teaching and Learning (NAIRTL) on research supervisor support programme development. The national launch of the NAIRTL framework took place in April 2011.

The joint *UCD/TCD Innovation Academy* commences its first full academic year in 2011, with 190 PRTLI funded PhD students. Students will participate in Academy modules during the year, while students from last year will participate in optional modules with a view to securing their Graduate Certificate in Innovation and Entrepreneurship.

In line with UCD's strategic objective to grow and enhance graduate education, 50 new graduate taught programmes will commence in September 2011.

Graduate Student Population	2009/10	2010/11
Graduate Taught	4,792	5,051
Graduate Research	2,103	1,956
Graduate Total	6,895	7,007
UCD Total Student Population	24,225	24,625
% Graduate	28.5%	28.5%

### Internationalising the Student Experience

UCD's international student community grew to over 4,600 in 2010/11, with increased enrolments from India (42%), Vietnam (70%) and Korea (50%). The list of UCD's exchange destinations saw the addition of Australia National University, University of Texas, Seoul National University, Tsinghua University and Zhejiang University. There was a 16% increase in UCD students participating in non-European exchange, and a 10% increase in participation in the Erasmus exchange programme. UCD's success in attracting funding through the Erasmus Mundus scheme continued, with €9.7 million awarded across three bids.

Academic developments included the introduction of a Liberal Arts and Sciences programme. Also, in collaboration with Trinity College Dublin, pre-undergraduate and pre-master's foundation studies programmes were established for international students. 2011 also saw the opening of UCD offices in New York and Beijing; these will play a critical role in student recruitment, partnership development and alumni relations.

The UCD Global Lounge opened in the Gerald Manley Hopkins Centre (formerly the Restaurant Building). As a hub for internationalisation on campus, it hosts a range of events including music recitals, stand-up comedy and live screening of international sporting events. For example, in February, Chinese students watched the New Year celebrations on Chinese State Television.

The Confucius Institute for Ireland celebrated its fourth anniversary in September 2010, marked by a visit from His Excellency Mr Li Chang Chun. The Institute was awarded its third Confucius Institute of the Year prize at a ceremony in Beijing. On the academic front, together with the Irish Institute for Chinese Studies, the Institute hosted the third Chinese Economic Association (Europe), and 22nd CEA (UK) Annual Conference. The Institute also provided Chinese classes to 2,000 students at degree and secondary school level, and through night classes.

2009/10	2010/11
4,645	4,693
2,569	2,635
24,225	24,625
19.2%	19.1%
10.6%	10.7%
	4,645 2,569 <b>24,225</b> 19.2%

## Widening Participation and Supporting Lifelong Learning

*Opening Worlds* is UCD's strategy for mainstreaming equality of access and lifelong learning and was launched in 2010/11. *Opening Worlds* builds on the widening participation commitments contained in UCD's Strategic Plan. It outlines the roadmap for increasing diversity and participation, and it aspires to develop an inclusive education environment. With the support of the HEA Strategic Innovation Fund, an integrated UCD Access and Lifelong Learning Unit was established. This draws together all strands of access (UCD Access Centre) and adult education-related activity (UCD Adult Education Centre), including disadvantaged students, those with a disability, those studying part-time and mature learners.

The UCD Access Centre provided a range of pre- and post-entry personal and academic supports to 1,800 students. In 2010/11 the Peer-Assisted Learning (PAL) initiative received one of the inaugural UCD Awards for Supporting Student Learning. The national implementation of the Higher Education Access Route (HEAR) and Disabled Access Route to Education (DARE) admission schemes resulted in an increase in the number of disadvantaged students and those with disabilities in UCD.

The UCD Adult Education Centre provided 2,483 part-time students with flexible support and study options. It was the 10th anniversary of the Access to Science and Engineering Programme, and the UCD Student Achievement Medal for Access and Lifelong Learning was awarded to recent graduate, Dermot McElwaine.

Under-Represented Student Population	2009/10	2010/11
HEAR Scheme Students	104	127
Students with Disabilities		
(including DARE)	152	145
Mature Students	336	389
Part-time Undergraduate Degree Students	76	69
FETAC	35	49
Total	703	779
% Under-Represented Students	<b>16.0</b> %	<b>18.3</b> %

#### Teaching, Learning Innovation and Academic Development

The 2011 Institutional Quality Review Team report commended UCD's "visionary approach to teaching and learning".

Five College Teaching Awards were presented as part of UCD's award and recognition initiatives for excellence in teaching. They also saw the appointment of three new Fellows in Teaching and Academic Development: Dr Suzanne Guerin, UCD School of Psychology; Dr Michael Staunton, UCD School of History and Archives; and Mr Jonathan McNulty, UCD School of Medicine and Medical Science. They will assume academic leadership in university-wide academic practice and policy projects, specifically the enhancement of the first year undergraduate learning experience. A number of UCD digital learning innovation projects (NDLR) also received funding.

The Supporting Student Learning Award scheme was launched in 2010, for non-teaching staff. The winners, whose innovations included data analysis to identify at-risk students, peer-assisted learning and technology-enhanced learning, were showcased at the Association of University Administrators All-Ireland Conference, hosted by UCD in May.

UCD's Graduate Diploma in University Teaching and Learning was expanded to offer a flexible part-time graduate qualification exploring the practice, philosophy and research-base of university education. This is available to academic staff in UCD and other Irish universities and colleges.

## Quality

The Irish Universities Quality Board (IUQB) commissioned an external quality review of UCD in March 2011, as part of the institutional review of Irish universities. UCD received a very positive report, which affirms that it has a range of embedded, quality assurance processes at institutional level and within the core activities of teaching and research. The Review Team confirmed that UCD is fully compliant with the statutory requirements of the Universities Act (1997) and is appropriately aligned with Part 1 of the European Standards and Guidelines for Quality Assurance in Higher Education.

The Review Team Report was published on the IUQB website (http://reviews.iuqb.net/) in June. UCD will provide a progress

report to the IUQB in early 2012, detailing how it is addressing the recommendations set out in the Review Team Report.

During 2010/11 the following units were reviewed: UCD School of Archaeology; UCD School of Business - Overseas Programmes, in collaboration with the National Institute of Business Management (NIBM), Sri Lanka; UCD School of Geological Sciences; Institute of Bankers UCD acceded programmes; UCD Human Resources; Thematic Review of Academic Supports for Students (sponsored by UCD Access and Lifelong Learning).



## RESEARCH

At the heart 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. UCD has embedded its four major interdisciplinary research themes in line with Ireland's needs and current global challenges.

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

## **CONTENTS**

Research Funding	24
Key Research Metrics and	
Performance Indicators	26
Major Research Themes: Earth	
Sciences, Energy and the Environment	26
Major Research Themes: Global Ireland	27
Major Research Themes: Health and	
Healthcare Delivery	28
Major Research Theme: Information,	
Computation and Communication	31

#### **Research Publications:**

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

## **Research Funding**

Externally funded research contracts registered during the year amounted to €103.1 million (see Table 1), which was more than double the value of awards registered in the previous financial year. Although this represents a significant improvement on the dramatically low value of awards in 2009/10, funding levels are still behind the peaks achieved in the 2007-2009 period. This is due to the low levels of

national funding support available for research.

Included in the €103.1 million funding is €25.7 million in respect of HEA awarded PRTLI projects. Also included is €22.9 million EU funding, an increase of 134% on the previous year. The value of the contribution to overheads amounted to €17 million.

#### 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
2005/2000	6 82.9	11.80	664	1,245
2006/200	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	6.70	459	970
2010/201	1 103.1	17.00	518	1,120
Funding so	urce		Number of contracts	Value (€ million)
Higher Edu	cation Authority (HEA)		22	25.8
European C	ommission (EC)		51	22.9
Science Fo	undation Ireland (SFI)		58	21.5
Irish Resea	rch Councils (IRCSET & IRCHSS	5)	85	6.9
Others			302	26.0
Others				

#### **Internal Schemes in Support of Research**

#### **UCD Strategic and Major Initiative Scheme**

The Strategic and Major Initiative Scheme provides support for the development of major interdisciplinary programmes that advance the strategy for research in UCD. During the year, 17 strategic and major initiative awards were granted. These are listed in Table 2.

#### **Competitive Peer-Reviewed Extramural Awards**

For the 2010 calendar year, Science Foundation Ireland (SFI) awarded 23% of research grants, by volume, to UCD. UCD was also awarded in excess of €30.4 million in funding payments from SFI, which equated to 20% of SFI's total research funding.<sup>1</sup> See Table 3 for the number of awards by institution.

#### Table 2: Strategic and Major Initiative Awards

Project Owner	Project Title	Value of Award $\in$
Professor Joe Carthy	Science Centre Equipment	1,250,000
Professor Colm Harmon	RTI Project Mobilisation	220,000
Professor Petra Ahrweiler	Support for Participation in the Innovation Academy	175,000
Professor Maeve Conrick	Programme Review in Relation to Access & Mature Students	173,000
Professor Barry Smyth	MicroCasting: Towards Automating Broadcast Quality Capture of Sporting Events	76,373
Professor Damien Mcloughlin	Science Identity Models	30,250
Professor John Murphy	Software Engineering for Enterprise Systems (Lero)	30,000
Dr Ken O'Halloran	Hypoxic Adaptation in Respiratory Muscle	20,000
Professor Orla Feely	Energy Research Admin Support	15,000
Professor Robert Gerwarth	The Limits of Demobilization	15,000
Dr Kevin O'Connor	European Symposium on Biopolymers	15,000
Professor Alexander Evans	Investigating the Maternal Response to Pregnancy in Camels	12,000
Professor David MacHugh	International Symposium on Animal Functional Genomics	12,000
Professor Thomas Brazil	TGI Supplemental Funding	10,000
Professor Orla Feely	Energy Research Admin Support	6,000
Dr Brian Vohnsen	6th EOS Topical Meeting on Visual & Physiological Optics (EMVPO 2012)	5,000
Professor Frederic Dias	Strategic and Major Initiatives Award - Tsunami Research	5,000

#### Table 3: SFI 2010 Awards by Institution

Institution	No. of Grants	
University College Dublin	52	
Trinity College Dublin	49	
University College Cork	26	
National University of Ireland, Galway	21	
Dublin City University	19	
Royal College of Surgeons in Ireland	15	
University of Limerick	15	
Tyndall National Institute	12	
National University of Ireland, Maynooth	11	
Dublin Institute for Advanced Studies	2	
Dublin Institute of Technology	2	
Waterford Institute of Technology	2	
Institute of Technology Tallaght	1	
Teagasc	1	
Total	228	

## Key Research Metrics and Performance Indicators

#### **Peer-Reviewed Publications**

The number of peer-reviewed publications from UCD researchers during 2010 was 1,963, which is an average of 2.06 publications per academic staff member (staff members include permanent, permanent part-time and temporary contracts greater than three years). UCD has consistently produced the highest volume of academic publications in the country since 2008.

<b>Publication Years</b>	No. of Publications
2006	1,227
2007	1,355
2008	1,616
2009	1,777
2010	1,963

#### Number of Publications in Top Ranking Outlets

The number of UCD publications in some of the highest impact peer-reviewed journals increased three–fold between 2004 and 2010. The impact of UCD's publications is 24% above the world average (source Thomson Reuters InCites).

#### Percentage of Research-Active Staff

In 2010/11, 77.6% of UCD academic staff were research active. Academic staff are defined as research active when they have an active grant (with an end date after 30 June 2011), or are supervising a PhD student (in the current academic year), or have had a publication in the last two years (June 2009 to June 2011).

## 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 2010/11 are outlined below.

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

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

- The PRTLI5 PhD Programme in Earth and Natural Sciences, the largest structured doctoral programme in Ireland (€6 million), recruited 47 high calibre international students to be enrolled at four Irish universities.
- The Institute hosted the highly successful Transforming Ireland lecture series, under the aegis of *TCD/UCD Innovation Alliance* and Dublin City Council.
- Three EU FP7 projects, led by staff from the Urban Institute of Ireland (UII), were successfully evaluated and passed to the negotiation stage: EcoArm2ERA (CSA), SmartRail (collaborative project) and TRA 2012 (CSA).

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

The Electricity Research Centre, under the directorship of Professor Mark O'Malley, is a collaboration with the main industries in the sector, focused on tackling the fundamental and applied research questions underpinning the development of a sustainable electrical energy system. The ERC comprises 15 industry members (as of August 2011) and is run by an Industry Board chaired by Michael Tutty, the Energy Regulator.

- In 2010/11 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.
- In March 2011, the inaugural meeting for the Sustainable Electrical Energy Systems Cluster was held in UCD. This Cluster, funded by SFI and industry, brings together four institutions (UCD, ESRI, UL and NUI Maynooth), 19 collaborators and 25 industry partners.
- ERC activity was also funded by SFI programmes with other major funding sources including industry members, PRTLI5 under the ERCGI programme, the European Commission, IRCSET and Teagasc.

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

The UCD BRC, under the directorship of Professor Nicholas Holden, is built on UCD's strong foundations in bioenergy research. It is developing biological engineering for environmental management in support of the Irish Government's *Smart Green Economy* strategy.

- The BRC has established a Smart Systems research group to address the use of sensors, animal biometrics, data management and delivery (cloud computing, smart phones, etc.) within the context of optimisation of agri-food production, processing and end-user delivery systems. The key academic leaders are Professors Colm O'Donnell, Francis Butler and Shane Ward.
- Professor Nick Holden signed an EU FP7 contract for Universal Microarrays used for the evaluation of fresh-water quality based on detection of pathogens and their toxins.
- Professor Shane Ward has finalised a programme with Carton Group (Ireland's largest chicken processors) for the installation of *CyberBar®* - a novel tamper-proof food chain traceability system.

## UCD Solar Energy Conversion (SEC) www.seccluster.ie

The UCD Solar Energy Conversion Strategic Research Cluster, under the directorship of Professor Don MacElroy, develops novel materials and devices that harness solar energy for solar derived power and fuels, based on principles that mimic the steps in natural photosynthesis.

- In 2010, the Cluster was awarded the second phase of SFI funding until May 2013 (€1.29 million).
- The Cluster welcomed new industry partners Glantreo, Kingspan and Mainstream Renewable Power.
- The Cluster leveraged funding in excess of €2.75 million in 2010/11, from exchequer and non-exchequer sources, including: EU FP7 (Advanced Manufacturing Processes for Low Cost GREENerLi-ION Batteries), EU INTERREG IVB, IRCSET, SFI, PRTLI5, Enterprise Ireland, US Navy, PhD Scholarships, and ICHEC computational hours.

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

The aim of the Global Ireland research theme is to transform the study of Ireland and the Irish diaspora. 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.

#### UCD Geary Institute www.ucd.ie/geary

The UCD Geary Institute, under the directorship of Professor Colm Harmon, is Ireland's leading social science research institute and is home to research projects in areas of human development, behavioural and applied micro economics, political science, public health and sociology.

- The Institute is ranked 1st in Ireland in the field of economics and 16th in Europe among university-based centres for economics research, as measured on www.repec.org. This places Geary in the top 2% of European centres.
- The Institute is the most cited producer of economics research in Ireland, as measured by the Social Science Research Network, and is the only Irish research institute in this discipline to make the global top 5% of research institutes.
- Professor James Heckman leads a major European Research Council (ERC) programme at Geary, which combines health, psychological and economic research to examine the origins and evolution of health inequalities over lifetimes and across generations.
- Geary hosted a policy evaluation masterclass, in conjunction with the Harris School of Public Policy, University of Chicago, for senior Irish policymakers across a range of Government departments and State agencies.

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

UCD Humanities Institute of Ireland, under the directorship of Dr Marc Caball, is a dynamic flagship platform for interdisciplinary research and innovation in the humanities and social sciences. Its current strategic focus is the development of a graduate laboratory in the humanities and the enhancement of research relevant to its thematic focus: culture, society and change.

- HII's outreach programme included: sponsorship of the Dublin Intellectual events in city centre locations; and the creation of an international online audience for HII events through podcasts.
- UCD Press, a component of the HII, published 11 titles during the period, including two on literature written in Irish, biographies of Frank Ryan and Rosamond Jacob, and Michael C O'Malley's *Military Aviation in Ireland*, 1921-45. New history titles included L Perry Curtis Jr's *Depiction* of Eviction in Ireland, Paul Murray's *The Irish Boundary Commission and its Origins* and Colin Barr's *The European Culture Wars in Ireland*.

## UCD John Hume Institute for Global Irish Studies www.ucd.ie/johnhume

The Institute's mission, under the directorship of Dr Brian Jackson, 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 Institute initiated a short-term fellowship exchange programme with the John Hume Institute at the University of New South Wales.
- The Institute hosted a number of international symposia including *Them and Us, The Agreement Generation* (November 2010).
- The Institute also hosted visiting research fellows, including Michael Shanks of Stanford, GII/HII visiting professor of Digital Humanities.

## Major Research Themes - 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. UCD focuses on major challenges that are impacting health, nationally and internationally, such as diabetes, infection, skin disease and reproductive biology. In addition to an integrated and crossdisciplinary structure that encourages collaboration, UCD has created strong translational research links through its affiliated teaching hospitals and the strategic alliance with Molecular Medicine Ireland.

#### UCD Conway Institute of Biomolecular and Biomedical Research www.ucd.ie/conway

The UCD Conway Institute, under the directorship of Professor Walter Kolch, is a community of researchers with an interdisciplinary approach to performing novel research in biomedicine and translating results into clinical, industrial and commercial applications for the benefit of society.

- The European life sciences journal, *Lab Times*, named Professor Des Higgins as the fourth most cited author and his *Nucleic Acids Research* journal article on Clustal X as the most cited paper in the field of molecular genetics and genomics from 1997-2008.
- The Wellcome Trust awarded €3 million for an Irish four year structured PhD programme in Computational Infection Biology, led by Professors Geraldine Butler and Denis Shields.
- The first entire genome of an Irish individual was sequenced by a team of scientists led by Professor Brendan Loftus.
- Two antibodies that could help block the onset of Alzheimer's disease in the brain were identified in a collaborative research project between Professor Dominic Walsh, UCD, and Professor John Collinge, Director of the MRC Prion Unit at University College London.
- Professor William Gallagher received the NovaUCD 2011 Innovation Award in recognition of his ongoing successes in the commercialisation of intellectual property arising from UCD research programmes.

## UCD Institute of Food and Health www.ucd.ie/foodandhealth

The UCD Institute of Food and Health, under the directorship of Professor Mike Gibney, is a global leader in food and health research. It brings together academic and research staff from across UCD in health-related aspects of food research, and aligns research efforts with national, international and industry research agendas.

- UCD is ranked in the top 10 European universities and top 25 globally in Food Science and Technology research outputs.
- The Institute was particularly successful in targeting EU FP7 funding, bringing its total EU funding to €4.5 million.

#### The Charles Institute www.ucd.ie/charlesinstitute

Completed in 2011, with an investment of €18 million, the Charles Institute will become a leading centre in dermatology research and training, with the objective of improved patient care through the discovery of new treatments and therapies.

- The Charles Institute is a partnership between the UCD School of Medicine and Medical Science; affiliated teaching hospitals, St Vincent's University Hospital and Mater Misericordiae University Hospital; and the Board of the City of Dublin Skin and Cancer Hospital Charity.
- Dr Wolf Henning Boehncke has been appointed as Centre Director and will shortly take up his position at the Institute.

#### Systems Biology Ireland (SBI) www.ucd.ie/sbi

Systems Biology Ireland, under the directorship of Professor Walter Kolch, brings together experts focusing on the signalling networks that make cell fate decisions and govern stem cell function, with the aim of using stem cells in biotherapeutics.

- Professor Walter Kolch is coordinating a five year EU FP7 Cooperation Project ASSET (Analysing and Striking the Sensitivities of Embryonal Tumours) valued at €12 million (value to UCD of €1.7 million).
- An SBI-led EU FP7 HEALTH award PRIMES (Protein interaction machines in oncogenic EGF receptor signalling) (€2 million for SBI from €15 million entire award) – is currently in negotiation.

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

The Irish Drug Delivery Network, under the directorship of Professor David Brayden, combines the three schools of pharmacy in Ireland, as well as UCD, Genzyme Ireland, Sigmoid Pharma, Arch Therapeutics and Aerogen PLC to provide a centre of excellence for research in drug delivery. IDDN, which has successfully completed its mid-term review, has received €4.9 million in direct funds from SFI and a further €0.5 million from industry partners.

- In January 2011, IDDN welcomed a new industry partner, Arch Therapeutics, a company specialising in making peptides for preventing bleeding in laparoscopic surgery.
- Three IDDN partners are participants in an EU FP7 grant application that will raise a minimum of €2 million in funds for Ireland, and €700,000 for UCD following final negotiations.











- 1. In Her Best Diamonds, Dr Noor Aman Hamid, PhD student in the UCD School of Public Health, Physiotherapy and Population Science, was announced as the overall winner of the 2010 UCD Images of Research Competition
- 2. Dr Emmeline Hill, a genomics researcher in the UCD School of Agriculture, Food Science and Veterinary Medicine, and co-founder of Equinome, won the Business Category Award at the 2011 David Manley Emerging Business Entrepreneur Awards. Pictured (I-r) are: entrepreneur, Dr Chris Horn, Dr Emmeline Hill and businessman Alfie Kane
- 3. The National Institute for Bioprocessing Research and Training (NIBRT) facility opened in the Belfield Innovation Park. It will support the biopharmaceutical industry in Ireland by educating and training highly skilled staff and conducting ground-breaking research in collaboration with industry
- 4. Professor William Watson, UCD Conway Fellow, and Professor John Fitzpatrick, UCD School of Medicine and Medical Science, and Mater Misericordiae University Hospital, received a HRB-SFI translational research award for the validation of biomarkers to inform surgical intervention for prostate cancer. Pictured (I-r) are: Minister for Research and Innovation, Mr Sean Sherlock TD; Professor William Watson; and Minister for Health, Dr James Reilly TD
- 5. The Cultural Dimensions of Innovation Conference took place as part of Innovation Dublin 2010. Pictured (I-r) are: Professor Petra Ahrweiler, UCD Innovation Research Unit; Nico Stehr, Professor of Cultural Studies, Zeppelin University, Germany; Dr Aoibheann Gibbons, UCD Research; Minister for Tourism, Culture and Sport, Mary Hanafin TD; Dr Philip Nolan Register, UCD; and Pat Moylan, Chairperson of the Arts Council
- 6. The Fault Analysis Group, located within the UCD School of Geological Sciences, won the NovaUCD 2010 Innovation Award. This was in recognition of its strategic and collaborative research links with global industry partners and its achievements in commercialisation activities. Pictured (I-r) are: Dr Tom Manzocchi, Professor John Walsh and Dr Conrad Childsco of the UCD Geology Research Group
- 7. The Charles Institute at UCD is the first academic institute devoted to dermatology in Ireland; it aims to become a leading international centre of excellence in dermatology research and training

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

The Centre for BioNano Interactions, under the directorship of Professor Kenneth Dawson, is Ireland's national platform for bionano-interactions 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, if harnessed responsibly.

- The four year CBNI-coordinated EU FP7 project, Research Infrastructure for NanoSafety Assessment (QNano), brings together 29 European partners to address quality in nanosafety assessment.
- A publication from CBNI on nanoparticle-protein interactions was the fourth most-cited paper from *NanoToday* for the period 2006-2010.
- CBNI PhD student, Mattia Bramini, won the Young Scientist Award at the 2011 Spring Meeting of the European Materials Research Society.

# Technology Research for Independent Living (TRIL) www.trilcentre.org

The TRIL Centre, under the directorship of Dr Brian Caulfield, is an international research centre which defines and profiles the ageing process in order to develop technologies to allow more successful ageing. The Centre is an academic, industry

- collaboration between UCD, TCD, Intel and GE Healthcare.
  TRIL was highlighted as a major initiative in Europe and a model approach to ageing research and technology development for independent living.
- Roisin Dunbar and Chloe Reid, from FCJ Secondary School, Bunclody, won a special TRIL award at the BT Young Scientist expo for their project, Push Electric, a device to assist with the insertion and removal of electric plugs for arthritis sufferers and older people.

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

The CRC, under the directorship of Dr Peter Doran, is a national leader in clinical and translational research. It strives to discover ways of improving medical care and to establish new treatments that will improve the quality of life for patients living with chronic illness.

- Over 200 projects have been completed or are ongoing, involving over 250 CRC users.
- The Centre and its investigators have leveraged almost €20 million in project and programme grants.
- The Centre developed a biomarker validation laboratory in partnership with Abbott Diagnostics.

#### Molecular Medicine Ireland (MMI) www.molecularmedicineireland.ie

Molecular Medicine Ireland is a partnership between UCD, NUIG, RCSI, TCD and UCC, under the directorship of Dr Ruth Barrington. It is a not-for-profit company with a mission to accelerate the translation of biomedical research into improved diagnostics and therapies for patients.

- The MMI Clinical and Translational Research Scholars Programme, awarded €4.3 million under PRTLI5, recruited 20 students in June 2011. NUI Galway, UCD, TCD and UCC have partnered with industry and the Irish Medicines Board to develop and deliver the programme.
- An EU FP7 application for funding for a multi-centre, multinational, investigator-driven clinical trial in Alzheimer's disease, led by TCD and St James's Hospital and supported by ICRIN, was prioritised for €6 million in funding.

#### National Institute of Bioprocessing Research and Training (NIBRT) www.nibrt.ie

NIBRT, under the interim directorship of Professor Ian Marison, is a world-class institute which provides training and research solutions for the bioprocessing industry. NIBRT is an innovative collaboration between UCD, TCD, DCU and Institute of Technology Sligo, and is part-funded by IDA Ireland.

- The new NIBRT building, situated in the Belfield Innovation Park, was opened in June 2011. The 6,500 m<sup>2</sup> purpose built facility offers: state-of-the-art training and pilot plant facilities; Beta test facility for new concepts; showcase of new products and latest technology; and scale-up facility for research and innovation collaborations.
- NIBRT's research collaborations included: Shire Human Genetic Therapies Ltd., to develop analytical tools for site specific glycan characterisation; and GE Healthcare, to develop an Fc receptor platform for determining monoclonal antibody biological activity. Both projects are in collaboration with UCD Professor Pauline Rudd and the Glycobiology Group. Professor Rudd was awarded the first Agilent TLA for innovative technologies and the James Gregory Award from the University of St Andrews. She is also in receipt of three new EU FP7 grants, HighGlycan, GlycoHIT and GlycoBioM.

### **Major Research Themes - Information, Computation and Communication**

The field of information, computation and communication is 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 analysis of large-scale data sets, a deep understanding of systems and simulation through complex modelling. Within UCD, this major research theme builds on the following unique collaborative programmes.

#### CLARITY - Centre for Web Sensor Technologies www.clarity-centre.org

CLARITY, under the directorship of Professor Barry Smyth, is a partnership between UCD, DCU and Tyndall National Institute (TNI) Cork. The centre focuses on the intersection between adaptive sensing and information discovery, in order to develop innovative new technologies and contribute to improving quality of life, in areas such as personal health, digital media and management of the environment.

- CLARITY's funding base is approximately €30 million. In addition to €12 million from SFI, CLARITY has secured more than €11 million from EU and industry sources, and now supports over 100 researchers.
- CLARITY's scientific output has surpassed 136 journal and 254 conference papers and its research has been recognised by international awards, including the prestigious 2011 Globe Sustainability Research Award in Stockholm, and Best Paper awards from the British Computer Society.
- To date, CLARITY's research, supported by Enterprise Ireland, has led to two spin-out companies: HeyStaks and Wattics. HeyStaks secured €1 million in venture capital funding and employs 15 people in NovaUCD.

#### UCD Complex and Adaptive Systems Laboratory (CASL) www.ucd.ie/casl

UCD CASL has developed four clusters of research excellence. These build on the Institute's competitive strengths, leveraging interdisciplinary research, to solve the 'Grand Challenges' in science and society. To this end, the application domains currently being pursued align with global societal needs and present real opportunities to build on excellence and amplify the CASL research impact.

 Professor Scott Rickard took a one year leave of absence and Professor David Coker has assumed directorship of CASL.

- Three SFI PI awards, totalling €2.1 million, were granted: Professor David Coker (€750K) - Excitation Energy Transfer in Light Harvesting Nanostructures; Professor Chris Bean (€650K) – Ocean Wave Energy with Seismic Measurements; and Professor Frederic Dias (€700K) -High-end Computational Modelling for Wave Energy Systems.
- During Innovation Week, the Innovation Research Unit hosted a very successful event entitled: *UCD Cultural Dimensions of Innovation*, with four internationally respected speakers.

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

The Clique research cluster, under the directorship of Professor Pádraig Cunningham, addresses the development of computational techniques for the analysis and visualisation of network data.

- The Clique Research Cluster had a successful three year progress review in June 2011, which resulted in funding of €1.3 million. The independent review panel, chaired by SFI, comprised leading international researchers from industry and academia; it examined progress to date, future work plans and industry interactions.
- Clique's Lead PI, Professor Padraig Cunningham, as part of a collaboration with the Exascale activity at IBM Dublin Research Laboratory, won IRCSET's Enterprise Partnership Scheme Award. A postgraduate scholarship and postdoctoral fellowship will be co-funded by IRCSET and IBM. Total funding is valued at €150K.

#### FMC<sup>2</sup> - Financial Mathematics and Computation Cluster www.fmc-cluster.org

FMC<sup>2</sup>, under the directorship of Professor Anthony Brabazon, is a collaboration between UCD, DCU, NUI Maynooth and industry partners. It brings together complementary expertise in financial mathematics, financial economics and computer science to create a holistic research programme in asset and risk management.

- FMC<sup>2</sup> organised a week-long algorithmic trading summer school. Speakers included Dietmar Maringer, Chris Stephens, and Philip Hamill.
- FMC<sup>2</sup> and the NCRA group hosted the largest ever *ACM Genetic and Evolutionary Computation Conference* (GECCO 2011) in Dublin, only the second time it has been held outside the USA. Over 600 delegates from 52 countries attended.

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

NDRC, under the directorship of Ben Hurley, is an independent enterprise dedicated to accelerating research from idea to income. Founded by a consortium of third level institutions (UCD, DCU, Dun Laoghaire Institute of Art, Design & Technology and the National College of Art & Design) NDRC's collaborative approach with technology and business innovators drives greater collective success while cultivating bolder attitudes towards invention and investment.

- With over 300 people connected to the enterprise, NDRC has invested in 40 research-inspired start-ups and unincorporated joint venture projects in 2010/2011. All of these projects and start-ups are targeted at research and technology commercialisation, and developing and marketing new ICT/digital products and services in the areas of healthcare, entertainment, education and green tech.
- NDRC has worked with partners to secure follow-on investment of €4.4m in 2010/2011.

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

#### UCD Major and Multidisciplinary Research Institutes

UCD Conway Institute 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 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/geary www.ucd.ie/casl www.ucd.ie/foodandhealth www.ucd.ie/hii www.ucd.ie/cscb www.ucd.ie/earth www.ucd.ie/uii

www.ucd.ie/conway

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

www.ucd.ie/cbni 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 erc.ucd.ie www.ucd.ie/crc www.ucd.ie/medicine/aboutus/healthcareinpractice/dublinacademicmedicalcentre www.ucd.ie/nvrl

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# INNOVATION AND PARTNERSHIP

Innovation is the third pillar of UCD's Strategic Plan, building on the existing pillars of education and research. Advancing innovation at UCD remains a key goal, relating not only to economic development, but also to culture and society.

## **CONTENTS**

Maximising Impact of UCD's	
Knowledge and Expertise	34
Fostering Innovation and Entrepreneurship	
at Third and Fourth Levels	36
Fostering Innovation Among UCD Staff	36

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

UCD continues to translate its knowledge and expertise for the benefit of Ireland's economy, culture and society. UCD's mission is to support and facilitate the Government's goal for sustainable economic renewal by contributing to Ireland's smart economy.

UCD continued to forge strategic partnerships in 2010/11, under the Strategic Plan's innovation pillar. The *TCD/UCD Innovation Alliance* remains a key focus of the university's efforts, and the year saw the formal opening of the *Innovation Academy* in November 2010.

The Innovation Academy is the educational centrepiece of the Alliance, and it has responsibility for providing an environment which fosters creativity, innovation and entrepreneurial thinking amongst PhD students. In January, the Academy received €1.7 million in PRTLI5 funding from the HEA, leading to the employment of three facilitators and a sustainability manager, in addition to the two administrative staff funded by UCD and TCD.

The *Innovation Academy* welcomed President John Hennessy, Stanford University, during his April 2011 visit as International Advisory Board member for the *Innovation Alliance*. His message to Academy students was to 'innovate or die'.

#### **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 2010/11, bringing the total to 32. These companies occupy more than 90% of the incubation space available and collectively employ over 200 people. At the end of the reporting period an additional seven companies were also located in NovaUCD's desk space, which is designed for early stage entrepreneurs.

An important element of NovaUCD's strategy is to refresh the community of entrepreneurs continuously and, where possible, to have the capacity to house new companies. This year saw four companies graduate from NovaUCD bringing the total number of graduations to over 20.

Fifteen new, high-tech and knowledge-intensive business ventures are currently taking part in NovaUCD's 2011 Campus Company Development Programme. The new ventures are commercialising research undertaken across the full range of UCD schools.

During the year, 48 inventions were disclosed and 16 priority patent applications were filed across all areas of life sciences, engineering and information communication technology. Thirteen licence agreements were also signed with indigenous and international companies.

#### Other highlights include:

- NovaUCD partnered with BT Ireland to deliver the 2011 BT Business of Science and Technology Programme at NovaUCD.
- BiancaMed, the UCD School of Electrical, Electronic and Mechanical Engineering spin-out company, was acquired by ResMed, a leading developer, manufacturer and distributor of medical equipment for treating, diagnosing, and managing sleep-disordered breathing and other respiratory disorders.
- Several NovaUCD client companies won prestigious awards during the year:
  - Celtic Catalysts, the UCD School of Chemistry and Chemical Biology spin-out company, won a 2011 *Irish Times/*InterTradeIreland Innovation Award for the Application of R&D.
  - JLizard, a new software development company which has developed a cloud-based product to enable organisations to reduce significantly the time required to analyse the log data of their IT systems, was the overall winner of the NovaUCD 2010 Campus Company Development Programme. JLizard was founded by Dr Trevor Parsons and Dr Viliam Holub as a spin-out company from UCD's School of Computer Science and Informatics.
  - Professor William Gallagher, a leading cancer biology researcher in the UCD Conway Institute and the UCD School of Biomolecular and Biomedical Science and co-founder of the UCD spin-out company OncoMark, received the NovaUCD 2011 Innovation Award.
- Companies securing funding included:
  - Socowave, the NovaUCD-based developer of advanced wireless access systems for mobile communications, secured a €3 million investment round led by Balderton Capital.
  - HeyStaks, a spin-out company from the CLARITY Centre for Sensor Web Technologies, secured €1 million equity funding from the Ulster Bank Diageo Venture Fund, which is managed by NCB Ventures.
  - ServiceFrame, the NovaUCD-based outsourcing relationship management specialist, secured a €950K investment, led by the Bank of Ireland Seed and Early Stage Equity Fund with Enterprise Ireland and members of the executive team.
  - MuteButton, the NovaUCD-based company which has developed a novel medical device to treat people suffering from permanent tinnitus successfully, secured a €200K investment from Enterprise Ireland.
  - Dr Emmeline Hill, a genomics researcher in UCD's School of Agriculture, Food Science and Veterinary Medicine, and co-founder of Equinome, received the 2010 David Manley Emerging Business Entrepreneur Award, and the 2010 IMAGE Entrepreneur of the Year Award.

#### **Vice-President for Innovation**

In August 2011, Professor Peter Clinch, Jean Monnet Professorship of Economic Integration (European Environmental Policy), and UCD Professor of Planning, was appointed as Vice-President for Innovation to lead and further develop UCD's third pillar of activity. He takes up his post on 1 September 2011.





- 1. BiancaMed, the UCD medical technology spin-out company, was acquired by ResMed. Pictured (I-r) at NovaUCD, at the announcement of the acquisition, are: JC Kyrillos, President, ResMed, Ventures and Initiatives Unit; and Dr Conor Hanley, CEO and co-founder, BiancaMed
- 2. The overall winner of the NovaUCD 2010 Campus Company Development Programme was JLizard, a UCD School of Computer Science and Informatics spin-out company. Pictured (I-r) are JLizard's two co-founders: Dr Trevor Parsons and Dr Viliam Holub
- 3. Professor William Gallagher, a leading cancer biology researcher in the UCD Conway Institute, and the UCD School of Biomolecular and Biomedical Science, received the NovaUCD 2011 Innovation Award. He is pictured with his daughter Kate, aged 3
- 4. Pictured (I-r) are the winners of the 2011 BT Business of Science and Technology Programme: Barry Holland, Clonakilty Community College, Co. Cork; Romy Gerring, Banbridge Academy, Co. Down; Colm O'Neill, Managing Director, Business, BT Ireland; Kate O'Regan, Loreto College, St Stephen's Green, Dublin; and Katie Pierce O'Shea, Coláiste na Sceilge, Co. Kerry. The programme was devised by BT and delivered by NovaUCD
- 5. HeyStaks, a spin-out company from the CLARITY Centre for Sensor Web Technologies, secured €1 million of equity funding from The Ulster Bank Diageo Venture Fund, managed by NCB Ventures. Pictured with Leo Hamill (foreground), Partner, NCB Ventures at the announcement are (I-r): Dr Maurice Coyle, Professor Barry Smyth and Dr Peter Briggs, the co-founders of HeyStaks
- 6. *Innovation Academy* students work on their team project for Debra Ireland, which looked at developing a plan for sustainable income. Debra Ireland are currently aiming to implement the students' plan
- 7. *Innovation Academy* students getting to know each other in the garden of Newman House, on their first day of the Creative Thinking and Innovation module



# Fostering Innovation and Entrepreneurship at Third and Fourth Levels

The *Innovation Alliance* has responsibility for providing an environment to foster creativity, innovation and entrepreneurial thinking amongst PhD students. In its inaugural year, 40 students from UCD (and similar numbers from TCD), representing 33 different subject areas, completed the core module in Creative Thinking and Innovation. As part of the module students took part in a range of activities and challenges including creative design with NCAD, role-play with Dr Olive Heffernan (Chief Editor, *Nature Climate Change*) and instigated Lego challenges at local primary schools. The students also applied their multidisciplinary team skills to projects hosted by 16 different public, charitable and private organisations, including HP, Covidien, SEAI, DEBRA and Google.

At third and fourth levels, UCD is now mainstreaming courses in innovation and entrepreneurship. This offers postgraduate students access to a range of transferable skills and 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

During the year, NovaUCD continued to develop and deliver a range of accredited courses for postgraduate students and non-accredited courses for staff and researchers. Courses and workshops were delivered in collaboration with:

- UCD Institute of Food and Health
- UCD Conway Institute of Biomolecular and Biomedical Research
- UCD School of Computer Science and Informatics
- UCD School of Chemical and Bioprocess Engineering
- UCD Library
- UCD Research Skills and Careers Development

# Fostering Innovation Among UCD Staff

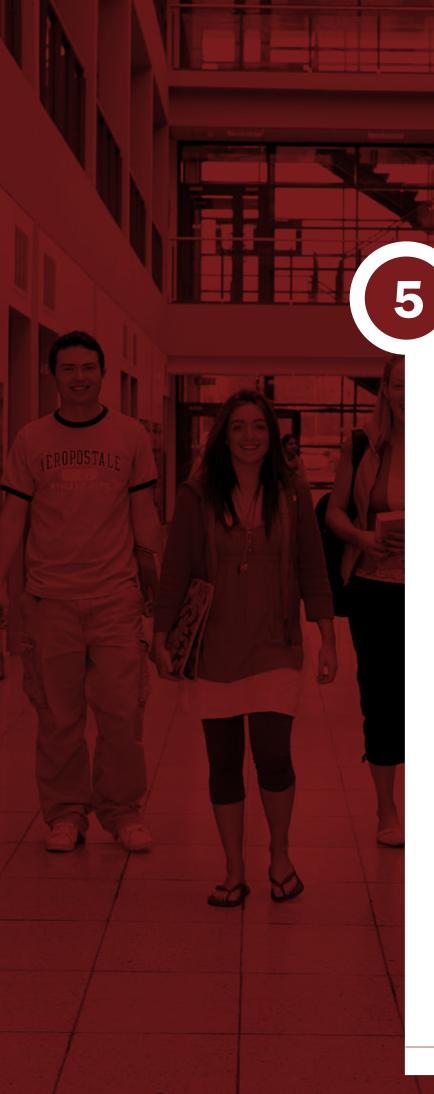
In July 2011, the *Innovation Academy* ran its first staff day. Academic and administrative staff experienced the Academy first hand by working in multidisciplinary teams on challenges ranging from rewriting the hippocratic oath for education, to designing the next generation of creative space.

Over the course of the current Strategic Plan, UCD will look to foster and reward UCD 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.

#### **NovaUCD**

At NovaUCD, a major objective is to increase awareness of UCD'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.

In August 2011, Dr Pat Frain retired as Director of NovaUCD, having spent 23 years developing and implementing innovation and knowledge transfer activities at UCD. Pat has been a national pioneer in the field of technology transfer and is a recognised European leader in this important field. UCD owes him a debt of gratitude for his years of exceptional service.



# **UCD STUDENT EXPERIENCE**

Creating well-rounded individuals is an essential part of a university education. UCD is committed to ensuring that all students enjoy and benefit from a holistic experience that is as challenging, rewarding and stimulating as possible.

UCD's services and extra-curricular activities ensure that the welfare of every student is looked after, from the moment they join UCD to the time that they graduate, and beyond.

# **CONTENTS**

Student Administrative and Support Services 38 Sports, Societies and Other Activities 40

# **Student Administrative and Support Services**

UCD's student advisers, counselling services, health services and chaplains offer a comprehensive and important range of supports to students on financial, medical and mental health issues, to name a few.

During 2010/11, administrative, support, information and technical services and systems were extended and enhanced to support UCD students and staff. These included bulk transcript generation, Electronic Fund Transfer for students, document self-service, automated internal transfer of funds processes, and a registration platform for Continuing Professional Development activities. New processes were also introduced to reinforce exam regulations in respect of student identification and communication devices.

A new Academic Analytics tool provides enhanced insight into student registration and workload patterns, enabling targeted student supports and improved student retention for programmes, a key strategic goal of UCD.

The Programme Development Consultation Network, established in 2010, devised a framework which provides clear guidance and supports to academic staff seeking to establish innovative taught and research programmes with partner institutions in Ireland and beyond. The Framework ensures that complex legal, technical and administrative issues associated with such collaborations are managed effectively.

2010/11 saw a major revision in how UCD programmes are presented in the CAO Handbook. UCD retained top place nationally as the destination of first choice for 2011 entry; CAO 2011 first preferences for UCD also rose by 4%. Omnibus entry, particularly to engineering, science and agricultural science, attracted strong interest, reflecting the return to broad degrees with the option to specialise at a later stage.

Recognising the strategic need to attract and support elite students, UCD established the UCD *Ad Astra Academy*. The Academy offers unique opportunities and supports to students displaying elite potential to international standards in academic pursuits, sports or performing arts.

#### 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. New first year students will have the support of a Peer Mentor. Student Advisers continue to provide a frontline support service for UCD students.

Student Advisers actively promote volunteering and support UCD Volunteers Overseas in fundraising initiatives. They also work in tandem with the Health Promotion Committee to promote healthy living among UCD students. The fifth annual *UCD Healthy Cookbook* is but one example of the diversity of activity in which Student Advisers are engaged.

# UCD Student Health Service www.ucd.ie/stuhealth

Key developments at the UCD Student Health Centre include longer opening hours and the provision of urgent care clinics to students. UCD Student Health has been working in partnership with UCD Sport, Student Advisers and the Health Promotion Committee to promote a healthy lifestyle.

#### UCD Chaplaincy www.ucd.ie/chaplaincy

In line with the goals of the UCD strategic plan, a key event in 2010/11 was the instigation of an inter-religious dialogue by the chaplaincy service. Representatives of the major world religions shared their beliefs and their experiences as UCD students.

As part of the celebrations for the beatification of John Henry Cardinal Newman, an ecumenical service was transmitted live from RTE studios. The UCD Choral Scholars provided the singing. The president of the Students' Union, Paul Lynam, two vice-presidents, Dr Martin Butler and Dr Padraic Conway and other staff along with UCD students attended.

# UCD Student Counselling Service www.ucd.ie/stuhealth/counsellingservice

Student Counselling continues to support positive student mental health and well-being. UCD Student Counselling Director, Marie Murray, completed two podcasts as part of the orientation series, *Student Survival Skills.* 



1







100

- 1. Pictured is the cast of the UCD Community Musical in their production of Disney's *Beauty and the Beast*. The production involved over 200 students, staff, alumni and friends and ran for four days in O'Reilly Hall
- 2. Competing in the final for the first time, UCD Marian won a historic victory against the favourites, 11890 Killester, in the Men's SuperLeague National Basketball Cup, in January 2011
- 3. UCD Choral Scholars celebrated a very successful 2010/2011 season, with trophies won at the ESB Feis Ceol in April (the Florence Culwick Memorial Cup and the Corn Hardebec (Irish Language) Cup), and the 'An Cór' Cup, which the students won in a televised all-Ireland Irish language choir competition. Pictured is some of the ensemble: (back row, I-r) Colm Kenny-Vaughan; Emma Fletcher; Michael Walsh; Niall Stafford; and Colm MacAogáin; and (front row, I-r) Megan O'Neill; and Danielle Fox
- 4. Pictured at the UCD Hanami and tree-planting ceremony, to remember the victims of the Tohoku Earthquake and Tsunami, with students of the UCD-DCU Taiko drum team (I-r): Hugo O'Donnell, UCD Applied Languages Centre; Yasuyuki Ozeki, Vice-Chairperson Irish Japan Association; Mary Ruane, UCD Applied Languages Centre; James McDonnell, Auditor UCD Japanese Society; Tatsuo Kitagawa, Councillor Embassy of Japan in Ireland; and Dr Martin Butler, UCD Vice-President for Students
- 5. Twenty one year old UCD scholarship student, Stephen Walsh, was crowned the 110th South of Ireland Amateur Open Golf Champion. Stephen has just completed his degree in Sports and Exercise Management
- 6. The UCD Rugby Team celebrates winning the Leinster Senior League Cup Final against St Mary's College, November 2010
- 7. In Haiti, three summer camps were run by 25 UCDVO volunteers. They reached approximately 700 children in the Gros Morne area. Camps took place in the mornings and involved sports activities, English classes, music, dance and arts and crafts. In the afternoons volunteers worked on flood prevention projects as well as building 55 latrines to improve sanitation facilities. Pictured are children at the Dekostye Summer Camp, July 2011

# 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**

Student societies and student activities continue to be at the heart of UCD. Highlights included:

- The UCD Community Musical, *Beauty and the Beast,* which took place in February in O'Reilly Hall, and played to several sold out houses.
- The annual Dramsoc production, *Hamlet*, which took place over the Christmas break. Guests included the Danish Ambassador to Ireland.
- The UCD St Vincent de Paul Society which was very active and continued to experience many demands on its student assistance fund.
- The centenary of the UCD Law Society, which was celebrated through a 'Past versus Present' debate held in the UCD Clinton Auditorium.
- Dramsoc took the Best Overall Production accolade at the Irish Student Drama Awards and was named UCD Society of the Year 2011. UCD Jazz Society took the Small Society of the Year title.

#### Sport

It was another busy year in sport with new initiatives introduced and students continuing to represent UCD with distinction. The Elite Athlete Academy had a very successful first year with the registration of 17 students. A partnership was established with the Student Health Centre, which resulted in the introduction of the Step Up & Join-In health and exercise referral programme.

#### **UCD Sport in the Community**

UCD Sport delivered educational workshops to six local secondary schools on exercise and health. This is part of the *Active for Fun* physical activity programme run by Dun Laoghaire Rathdown Sports Partnership. The Athletic Union Council, Dun Laoghaire Rathdown Sports Partnership and the Centre for Sports Studies developed and launched the Sports Volunteer Development Programme, aimed at giving volunteers the necessary skills to contribute effectively to the management and development of their sports clubs.

#### **Sporting Highlights**

#### GAA

UCD GAA and UCD Sport hosted the finals stages of the Centenary Sigerson Cup competition in March. As part of the celebration, the GAA club published a commemorative book entitled, *UCD and the Sigerson.* Over 600 distinguished guests attended a gala dinner to honour Dr George Sigerson and the Sigerson Team of the Century. Guest of honour was President McAleese.

#### Basketball

The Men's Basketball club had a remarkable year winning the elusive double: the University Championships and the Superleague National Cup.

#### Rowing

In rowing, the Boat Clubs swept the premier races in the 2011 National Rowing Championships, winning both the Men's and Women's Senior VIII events. The senior crews also secured both the Gannon and Corcoran Cups against old rivals Trinity on St Patrick's Day.

#### Golf

UCD Golfers had a fantastic year enjoying both team and individual success at the University Championships. Golf scholar Stephen Walsh also won the South of Ireland Amateur Open.

#### Hockey

The Men's and Ladies' Hockey Clubs hosted a very successful University Championships, where the Ladies secured the Chilean Cup. At national level, the Ladies' first team reached the last four of the Irish Hockey League and the Irish Senior Cup, while the men retained their Division 1 status in Leinster.

#### Rugby

It is fitting that in the Rugby Club's centenary season its teams enjoyed tremendous success. The first XV won the Leinster Senior Cup, retained the Dudley Cup and were promoted to Division 1B. The Under 21 team won the All Ireland Cup for the first time and also retained the Conroy Cup.

#### Soccer

In soccer the A team won the Football Association of Ireland A League; the Freshman team won both the Harding Cup and the Leinster Senior League Premier 1 Saturday Division title; and the Leinster Senior League Sunday side won the Gilligan Cup and the Sunday Senior 1A League title.

#### Swimming

In swimming, the newly established team dominated the Irish Intervarsity Championships, capturing the men's, women's and overall team titles. The team also secured the inaugural Colleges and Universities Sports Association of Ireland League title.



# **ENABLING FOUNDATIONS**

Providing the necessary support systems is essential to a flourishing university campus. These supports present a strong foundation that underpins UCD's strategies, and offer opportunities for students, staff and the wider community.

From funding and staffing to campus development, the goal is to create a stateof-the-art 'knowledge hub' for the 21st century. Communications, Development and Alumni Relations are essential when informing the world about UCD's successes and engaging the alumni base to develop a culture of philanthropy that supports UCD's strategic goals.

# **CONTENTS**

Finance	42
Human Resources	43
Library, Information and	
Knowledge Management	44
University Relations	45
Development and Alumni Relations	46
Capital Development	48
Awards and Honours	49

### Finance

UCD expects to generate a surplus of €0.8 million for the financial year ending 30 September 2011, on its HEA core funded activities. This will reduce its accumulated deficit to €6.9 million.

This is the third year in succession that UCD has reduced its accumulated deficit and this has been achieved despite the progressive decline in the level of State funding. In response to funding reductions and the introduction of a revised Employment Control Framework (ERC), UCD's Budget Review Committee continues to play a very important role in reviewing and monitoring expenditure levels across all units.

Commercial income generation makes a valuable contribution to strengthening UCD's reserves, and the recent completion of a major contract with Kylemore Catering, for the provision of catering facilities on campus, will provide additional income.

Income from ancillary activities also continued to increase, and this year saw a significant growth in summer residential business. This was previously licensed out to an independent operator. The Commercial Office greatly enhanced its accommodation booking system and offered extended opening hours to cater for the additional summer business.

During the year, extensive work was carried out to develop a university-wide smart card (ucard), which will enable students and visitors to access the residences and also buy food items in the restaurant and catering outlets across the campus, without the need for cash. The ucard, which is designed to provide multiple functions, will be rolled out to students and staff next year to reduce operating costs and make operations more efficient.

In partnership with UCD suppliers, significant savings in non-payroll expenditure were accomplished during the year, through the wider use of tendering and price negotiations with suppliers.

The UCD Procurement Office continues to play an important role in awarding tenders and acted as the lead partner in a number of major collaborative contracts with other universities.

An initiative to introduce elnvoicing is now at tender stage. This will transform the manner in which UCD interacts with its suppliers and will allow all high volume suppliers to submit invoices electronically, directly into UCD's financial systems, thereby eliminating the manual processing of invoices and substantial paper flows.

The eProcurement system was rolled out to a large number of smaller units in UCD, through the use of product commodity codes. The eProcurement system makes placing orders with suppliers far more efficient, while at the same time ensuring that all purchasing and ordering is controlled through the use of real time residual budget checks.

UCD faces major financial challenges in the year ahead, and achieving further reductions in its accumulated deficit will prove extremely difficult without an increase in funding. As State funding is expected to decline further in 2011/12, achieving at least a break-even position will very much depend on UCD's ability to attract more students, and to generate additional funding from the student contribution and student tuition fees.

# **Human Resources**

Over the past 12 months, Government policy has dictated the introduction of a range of restrictive and complex measures, collectively referred to as the Employment Control Framework (ERC). These have impacted directly on HR policy and service delivery and include: general restrictions on recruitment and a targeted reduction in numbers within the public sector; the introduction of a range of remuneration reductions; and the curtailment of promotional and other formal developmental opportunities. A continuing focus on public sector pension provisions, together with the transfer of university pension schemes to the State, has led to a range of new challenges in the administration and determination of pension decisions. The upcoming deadline of February 2012, as the point at which pension calculations based on pre-reduced salary levels will cease, has added uncertainty to retirement decisions.

These are all significant policy changes and they have been technically complex to administer. The timelines for implementation (as set out by Government) have also been extremely challenging. Notwithstanding these points, UCD HR has successfully implemented each policy change on time and in addition to an already full workload. In addition, a number of work streams (e.g. engagement with the trade unions, and consultation with staff to capture details of already established flexible work practices) have been well advanced in relation to the implementation of the Public Service Agreement (Croke Park), and these will continue next year.

UCD HR was closely involved in the Transition to New Academic Structures project, which resulted in the formation of four new colleges from two existing colleges. This project impacted on academic, administrative and technical staff categories. HR supported these changes alongside colleagues in the colleges and central administrative functions, and will continue its support into the coming year.

HR service delivery has been significantly refined and enhanced as a result of revised HR Partner assignments. This was based on a careful analysis of the general staffing environment, combined with feedback from across UCD, which included the recently completed HR Quality Review. These changes enabled HR Partner coverage to extend to new areas of UCD and also accommodated the new academic structures. The enhanced cover has been achieved with the existing HR Partner headcount.

UCD HR, like other parts of the university, has been operating in an environment of declining resources. Notwithstanding this, improvements continue to be made to a variety of different HR services, including: automation of certain tasks, such as online timesheets; improved access to HR policies through the website; an increase in provision of training for Support Colleagues; pilot of eDiversity programme; development of an online pension record to enable staff to access pensionable salary and pensionable service; continued development of the Head of School programme and related activities; and delivery of targeted training, based on Head of School/Unit and staff input and closer collaboration with the research community, thereby ensuring that the Research Careers Framework reflects the needs of the post-doctoral and Principal Investigator population.

The HR Quality Review took place in Spring of 2011 and the final report will be published in Autumn 2011. In parallel with this, a new HR strategy/plan will also be published following extensive consultation with staff. It is anticipated that this plan will help assist UCD in prioritising the HR/ people agenda for the coming two to three years.

#### **New Appointments**

#### **Appointments to Professor**

The table below sets out the academic appointments in the period 1 September 2010 to 31 August 2011, to positions of Professor, and includes both new recruits to UCD and UCD staff promoted.

Name	UCD School
Professor James I Burke	UCD School of Agriculture, Food Science and Veterinary Medicine
Professor Lizbeth Goodman	UCD School of Education
Professor Ciaran Sugrue	UCD School of Education

## Library, Information and Knowledge Management

UCD's core activities of knowledge transfer (teaching and learning) and knowledge creation (research and innovation) depend on access to key information and knowledge resources, as well as supporting technology infrastructure. To that end, during the first year of the current UCD Strategic Plan, networking and collaboration emerged as key strategies in pursuit of excellence. In 2010/11, this emphasis was maintained, with an intensified focus on sustaining quality of services in challenging times.

UCD Library continued with a multi-year plan to support access to information through improvements to computer systems. A new library management system was identified and implementation begun, and a new Library website was launched. Several initiatives started with the goal of rationalising and securing collections. UCD Library also joined TCD and the National Library of Ireland to plan a shared collections storage facility, and obtained supporting funding from the Andrew W. Mellon Foundation. The eventual facility will offer its services to Ireland's university and research libraries.

In line with UCD's aim to support teaching and learning with high quality, reliable and user friendly academic supports, the Library inaugurated a new service to provide each school and college with a tailored annual report of library activities. In order to encourage student engagement through the development of transferable skills, UCD Library rolled out a comprehensive information skills programme in 2010/11, which attracted 14,877 students.

Providing a new digital platform to support the Irish Virtual Research Library and Archive (IVRLA) digital library and other digital content gained momentum, with a roll-out of new services planned for 2012. The Library also continued to work with UCD Research and the UCD Geary Institute to plan the future of the Irish Social Science Data Archive (ISSDA). Funding was awarded from the National Digital Learning Resources programme to support the Library's development of eLearning tools for bibliometrics, and to digitise cultural heritage materials in support of teaching and learning.

In 2010, UCD launched major new developments in mobile services to provide students and staff with the most flexible access to information. Through campus wireless and mobile broadband services, there are typically 20,000 users with phones, laptops and tablets who avail of UCD's applications.

In September 2010, UCD IT Services offered an iPad loan service to UCD staff to encourage innovation using the latest technologies. This initiative was adopted rapidly, with over 100 UCD staff participating; it was followed by the use of iPads for students in the *Innovation Academy*. The UCD Mobile App, based on the Blackboard eLearning environment, was launched in 2011. It provides access from smartphones, tablets and iPads, and offers many possibilities in the teaching context, including live data capture by students on field trips, regular podcasts and a more interactive learning experience. UCD students also have a virtual classroom to interact with their tutors through the new Elluminate system.

In May 2011, students migrated to Google Mail, taking advantage of additional collaboration tools including Google Documents and Google Calendar, and mixing UCD's best provided services with market leading offerings.

The benefits of shared infrastructure and technical expertise have been demonstrated through the work IT Services has performed, alongside IPA and NCAD, to extend UCD's support services to their staff and students. In collaboration with HEAnet, significant progress has been made on joint infrastructure projects for the sector. UCD's work on data centre design has been adopted as the basis for a national initiative, while the Research IT team's work on cloud computing has led to sectoral projects for storage and compute cloud implementations. Working with the DRHEA, UCD IT Services organised an eLearning Summer School to foster awareness and innovation in eLearning. UCD also hosted the Summer Whiz Kids camps.

# **University Relations**

The University Relations Office (URO) manages the marketing, external communications and internal communications functions of UCD. Central to all communications is the promotion of UCD as a world-class university. University Relations seeks to project the activities and achievements of staff and students in order to enhance the reputation of the university. It promotes the UCD brand to stakeholders in Ireland and overseas.

#### **Campus Communications and Community**

The importance of effective decision making processes and channels for rapidly communicating to students and staff was demonstrated by the incidence of severe weather which resulted in the closure of the university in late November/early December 2010.

The UCD Noticeboard was developed in conjunction with IT Services. This channel publishes dynamically online, via UCD Connect, creating a central location to post information for all students and staff. It replaces the UCD *Information Bulletin* which was published monthly.

Two initiatives to build campus community were developed under the banner: Get to Know Your Campus. The UCD Staff Open Door 2011, held in April with UCD Buildings and Services, was an opportunity for staff to tour buildings they may not have been familiar with, including Belfield House, Merville House, Roebuck Castle, Charles Institute and Science Centre South. Feedback for this pilot was very positive and will be used in planning future tours. The *UCD Woodland Walks Map and Guide*, produced again in conjunction with UCD Buildings and Services, outlines five campus woodland walks covering a total of eight kilometres of recently completed pathway. The guide also details notable trees and types of wildlife to be found on campus and has been very well received.

#### **Student Communications**

Each year the office develops materials for prospective students and their advisors in order to highlight the benefits of a UCD education. One of the most successful elements of this work is the UCDLife website and video wall. University Relations has created over 150 videos featuring academics and students. Additionally, the office communicates with prospective students via social media networks such as Facebook and Twitter. University Relations also supports the activities of student recruitment staff through various marketing channels. In 2010/11, an extra drive was made during the change-ofmind window in June. Separate campaigns were developed for graduate, Access, mature, scholarship and *Springboard* audiences.

#### Media Relations

University Relations produces a variety of national and international news releases each year. During this period, the news that generated substantial media coverage included: the identification of a new species of gigantic dinosaur; how language can help predict stock market bubbles; the first full sequencing of an Irish person's genetic code; the mistreatment of older people in society; how CJD drugs could help tackle Alzheimer's disease; obesity in Irish men; and President Bill Clinton's visit to Belfield to receive the UCD Ulysses Medal.

The office also provides a 24/7 media relations service to respond to queries from journalists.

#### Web Communications

University Relations develops the content on the UCD website homepage. Increasingly, these features include audio/video footage produced by the office. This ranges from broadcasts of the colours boat race on St Patrick's Day, to interviews with academics such as Professor David Farrell during the general election campaign. One of the key features was the online documentary on the restoration of the Kevin Barry window.

#### Events

Throughout the year, some twenty major university events were managed or supported by URO staff. These ranged from community engagement to international dignitary visits and honorary conferrings. One of the new initiatives was a series of topical discussions entitled the President's Lunchtime Seminars, which demonstrated the range and depth of expertise across UCD and promoted interdisciplinary engagement.

#### TCD/UCD Innovation Alliance

In support of the *Alliance's* sponsorship of Globe Forum 2010, a major international innovation conference which took place in November as part of Innovation Dublin week, University Relations developed a range of materials and novel approaches to running a conference session profiling expertise in TCD and UCD.

#### Publications

University Relations produces *UCD Today* which includes features on the work of UCD academics as well as reports on activities and achievements throughout the university. The office also produces the *Report of the President*.

# **Development and Alumni Relations**

The Development and Alumni Relations Office maintains contact and fosters relationships with UCD alumni worldwide. Its purpose is to develop a culture of philanthropic support amongst alumni for education and research and UCD's strategic priorities.

#### **Alumni Relations**

The Alumni Relations strategy includes: capturing quality contact data to facilitate ongoing communications; building on the relationships with alumni that form the basis for giving and growth; and developing activities that encourage alumni to remain engaged with UCD.

The alumni magazine, *UCD Connections*, is distributed annually via *The Irish Times* as a cost effective method of increasing the distribution in Ireland. The magazine continues to be mailed to alumni abroad as part of our international alumni relations strategy.

The Alumni Relations communications strategy is complemented by six bi-monthly ezines which are issued to over 38,000 email addresses. The Alumni website was relaunched this year to coincide with the release of *UCD Connections* and conferring week.

The communications programme is supported by many alumni events. The Characters in Conversation events, now in their third year, are very popular, with participation levels increasing year on year. The traditional class and year reunions have been redeveloped with increasing numbers attending in 2011.

#### **Fundraising**

The success of the 2010/11 Alumni Relations programme has greatly benefitted UCD's fundraising programme.

The UCD Alumni Fund has performed well. Gifts to the Fund are disbursed on an annual basis and graduate donations have supported important programmes such as New ERA Scholarships, Sports Scholarships and UCD Choral Scholars.

Vital funding has been provided for the James Joyce Library, to enable the purchase of additional essential texts. Graduate generosity has also enabled UCD Archives, Special Collections and the Micheál Ó Cléirigh Institute to conduct important conservation and repair work.

Funding scholarships is an appealing way for alumni, families and businesses to help students achieve their potential in UCD, as well as assist students with limited means. In 2010/11, two scholarships were awarded for the first time: the Australia 1984 Scholarships in Rugby, and the *El Cielo Association de Mallorca* in Veterinary Medicine. In August 2010, UCD received an extraordinary gift of €500K from an anonymous donor. This is helping 12 graduates, who may have thought a business master's was beyond their means, to attend the UCD Michael Smurfit Graduate Business School. It is anticipated that 60 business leaders of the future will avail of the programme by 2015.

The Newman Fellowship Programme encourages the very best scholars to remain in academia; 22 years and 135 Fellows later, the Programme is as important as ever. There are currently 19 post-doctoral Newman Fellows across UCD, funded solely from the generous support of the corporate and philanthropic sector.

#### The Campaign for UCD – 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, Business and Sport as the key drivers of change and growth impacting UCD and its position in the international rankings.

The completion of the €11 million fundraising campaign for the UCD Sutherland School of Law is imminent and building of the new school is due to commence in early 2012.

Phase one of the UCD Science Centre will officially open in September 2011. Already €20 million has been raised in non-Exchequer funds for phase two, and €16.2 million has been raised from seven lead gifts. Building of these iconic new facilities is due to commence by year end.

With the planned opening of the Student Learning, Leisure and Sports Complex (SSLS) next year, the Campaign for Sport will see the the infrastructure and facilities being built for generations of future athletes, both on the field and in the classroom.

Assessing the Campaign needs for the School of Business is a priority for the year ahead.



REPORT OF THE PRESIDENT 47

# **Capital Development**

The first phase of the UCD Science Centre was completed in 2011. An Taoiseach Enda Kenny TD will officially open the UCD Centre for Molecular Innovation and Drugs Discovery in September. Phase two of the UCD Science Centre is expected to be completed by late 2013, and will provide over 30,000 m<sup>2</sup> of new and refurbished scientific facilities. The completed UCD Science Centre will unite the scientific disciplines to provide an educational roadmap which leads from primary school, secondary school and on through the undergraduate programmes into postgraduate training, research and innovation.

The new National Institute for Bioprocessing Research and Training (NIBRT), located in Belfield Innovation Park, was also opened in 2011.

The new Charles Institute, funded primarily through the generosity of the City of Dublin Skin and Cancer Hospital Charity (Hume Street Trust), is the first national institute devoted to dermatology in Ireland, and now physically links the UCD Health Sciences Centre with the UCD Conway Institute.

The Charles Institute also hosts the Kevin Barry Memorial Window, which was removed from its original location in Earlsfort Terrace and sensitively restored. It was formally unveiled by the Minister for Education and Skills, Mr Ruairí Quinn TD.

Influencing factors which attract a student to UCD are not just limited to the academic programmes on offer, as careful consideration is also given to the wider social and recreational amenities. The development of the UCD Student Learning, Leisure and Sports Complex is scheduled to be completed in 2012, and will provide students, staff and the local community with an unparalleled range of amenities.

Design and procurement of other capital development works such as the UCD Sutherland School of Law, Systems Biology, Graduate Medicine, the UCD Confucius Institute, and additional residential and commuting facilities are ongoing.

UCD continues to adapt the building portfolio to meet the individual and changing needs of a diverse student body. The development of the Gerard Manley Hopkins Centre (formerly the UCD Restaurant Building) has delivered a suite of resources designed to accommodate both the local and international student community. Located on the lower floor, the new UCD Global Lounge is an attractive, friendly and relaxed social space for students, and it acts as a dedicated venue for seminars, receptions, talks and other international related events. The Belfield campus landscape is unique to UCD, and the recent launch of the Woodland Walks highlights how the continuous development of the campus landscape presents an opportunity to enhance both the student learning experience and social engagement.

#### **Sustainable Campus**

UCD is committed to the development of a sustainable, healthy and living campus. Management of energy usage and greenhouse gas emissions is a core element of the overall sustainability objective. Table 1 outlines the sources of UCD's energy consumption.

Table 1: UCD Energy Consumption	20010/11
Electricity	24.0 GWh
Natural Gas	60.5 GWh
Biomass Heat	2.5 GWh
Transport Fuels	0.5 GWh
Gas Oil	0.5 GWh
Total Consumption	88 GWh

 The on site gas-fired Combined Heat and Power (CHP) plant generated 9.5 GWh of electricity and 10.5 GWh of heat. The CHP gas consumption is included in the natural gas figure above.

 The main Belfield Campus accounts for 90% of the total energy consumption, with the Blackrock Campus accounting for 5% and a number of smaller locations making up the balance.

Ongoing capital developments incorporate sophisticated energy controls, heat recovery systems, rainwater harvesting, solar energy systems and high efficiency equipment. In 2010, UCD generated average savings of 4% in energy consumption through the energy management and reporting programme initiatives, combined with several energy efficiency projects undertaken with grant support from SEAI.

Energy initiatives implemented in 2010/11 include building management system upgrades, boiler upgrade, lighting improvements, heating controls, fabric insulation and installation of a web-based monitoring and targeting system across a number of campus buildings.

Actions planned for 2011/12, to improve campus energy performance further, include the installation of high efficiency condensing boilers, the upgrade of the CHP at Belfield, and general heating and lighting control improvement initiatives.

# **Awards and Honours**

### **UCD Ulysses Medal**

The highest honour that UCD can bestow, it is awarded to individuals whose work has made an outstanding global contribution.



#### **President Bill Clinton**

30 September 2010, in recognition of his ongoing commitment and contribution to the peace and prosperity of Ireland and to the elimination of poverty, disease and suffering worldwide.



Seamus Heaney 16 June 2011, in recognition of his global impact as a poet.

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

Awarded annually at the UCD Foundation Day Dinner, to an alumnus in recognition of their outstanding achievements.



#### Dr Eddie O'Connor

5 November 2010, CEO, Mainstream Renewable Power, in recognition of his outstanding contribution to engineering.

# **Awards and Honours**

#### **Honorary Degrees**



Cecilia Bartoli 29 November 2010, worldleading mezzo-soprano - Honorary Degree of Doctor of Music



John Montague 16 June 2011, holder of Ireland Chair of Poetry (1998-2001) - Honorary Degree of Doctor of Literature



**Ciaran Carson** 16 June 2011, Director of the Seamus Heaney Centre for Poetry - Honorary Degree of Doctor of Literature



Daniel Browne 29 August 2011, Agribusiness leader - Honorary Degree of Doctor of Science



Brendan Halligan 13 December 2010, public servant and businessman -Honorary Degree of Doctor of Literature



Nuala Ni Dhomhnaill 16 June 2011, holder of Ireland Chair of Poetry (2001-2004) - Honorary Degree of Doctor of Literature



Garry Trudeau 16 June 2011, Doonesbury creator - Honorary Degree of Doctor of Arts



29 August 2011, Agribusiness leader - Honorary Degree of Doctor of Science



Maureen Toal 13 December 2010, actress - Honorary Degree of Doctor of Literature

Paul Durcan

16 June 2011, holder of

Doctor of Literature

Frederick Murphy

of Science

Noel Kinsella

Literature

30 August 2011, Speaker

Honorary Degree of Doctor of

of the Senate of Canada -

17 June 2011, veterinarian

- Honorary Degree of Doctor

Ireland Chair of Poetry (2004-

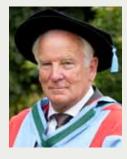
2007) - Honorary Degree of



Brian O'Doherty 2 June 2011, artist -Honorary Degree of Doctor of Literature



Michael Longley 16 June 2011, holder of Ireland Chair of Poetry (2007-2010) - Honorary Degree of Doctor of Literature



Frank O'Leary 17 June 2011, veterinarian - Honorary Degree of Doctor of Science



31 August 2011, playwright -Honorary Degree of Doctor of Literature



**Trevor McGill** 2 June 2011, physician and surgeon - Honorary Degree of Doctor of Science



Harry Clifton 16 June 2011, holder of Ireland Chair of Poetry (2010-2013) - Honorary Degree of Doctor of Literature



Brian Sweeney 29 August 2011, businessman and engineer -Honorary Degree of Doctor of Science