

University College Dublin Ireland's Global University

REPORT OF THE PRESIDENT

SEPTEMBER 2018 - AUGUST 2019

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University College Dublin National University of Ireland, Dublin

September 2018 – August 2019

For presentation to the Governing Authority of University College Dublin, National University of Ireland, Dublin at its meeting on 12 December 2019.

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OVERVIEW BY THE PRESIDENT

I am pleased to present my sixth report as President of University College Dublin. This report highlights the many successes and achievements across the University this year. We continue to build our reputation as Ireland's largest and most globally engaged university.

Over the past year I have undertaken an extensive consultation process with faculty and staff throughout the University, with the Governing Authority and with key stakeholders to review our achievements over the past five years against our Strategy 2015-2020 and to work together to develop our new Strategy for 2020-2024.

The world around us is changing, and the political and social landscape in which we operate is evolving. Certainties which have been taken for granted are now under threat, and the global society which may arise from this turbulent period is as yet unclear. Our opportunity is to shape that global society. In developing our new strategy, we will ensure that we provide leadership in the shaping future social, political and technological landscapes in Ireland and beyond, contributing actively to the international dialogues. Our Strategy 2020-2024 will be launched in December 2019.

Looking back on 2018/19, we have continued to advance against our strategy despite the financial challenge of persistent underfunding of Irish students. The increase in the State core grant to UCD for 2019 did not meet the costs of the public service pay restoration and indexation. Nevertheless, UCD managed to continue progress towards meeting its strategic objectives and to remain within budget during that period, primarily through the recruitment of more non-EU students and increasing commercial income.

However, as our student numbers (both Irish and international) have increased, and we now employ more faculty and staff than ever before in the history of the University, there is a consequent pressure on infrastructure. As a result, campus development has continued apace. Last September, renowned international design firm Steven Holl Architects was appointed to oversee the delivery of Phase 1 of the Future Campus Masterplan. This transformational project will contain two significant but distinct buildings: the Centre for Creativity and the Centre for Future Learning.

The Centre for Creativity will provide modern and purpose-built facilities for UCD College of Engineering and Architecture in proximity to the existing Engineering and Materials Science Centre. Additionally, it will be a landmark building, providing a frontispiece for the University and a sense of arrival and welcome at this key entry point to the campus, and will include public engagement and gallery space. The second building, the Centre for Future Learning, designed by RKD Architects, will provide a new academic heart for the campus. This building will provide teaching and learning facilities which facilitate the growth of disciplines across the University, and which also accommodates active learning pedagogies in a centralised and purpose-built state-of-the-art teaching and learning facility. A further objective of Future Campus Phase 1 is to significantly improve the public realm and arrival experience at this key location on the Belfield campus, through highquality urban design, landscaping and place-making.

May 2019 saw the much-anticipated opening of the UCD University Club, providing a new hub for faculty, staff, alumni and partners of the University to meet, socialise and entertain in an environment befitting a world-class university. Designed by renowned architects Scott Tallon Walker as an addition to UCD O'Reilly Hall, the Club is an elegant and warm space for members and their guests. It provides a space and place where our University community meets socially and professionally, and where we offer hospitality to visiting faculty, alumni and partners of the University. The UCD University Club is part of our commitment to further build relationships with alumni, academic conferences and collaboration, other institutions and industry partners, and to build our University community.

The first of its kind in Ireland, the University Club has addressed a significant gap in on-campus facilities. We are delighted that it has quickly established a loyal and regular following among alumni and UCD faculty and staff.

Phase 1 of our ambitious Residential Masterplan is currently under development, with key structural elements completed in Spring 2019. Due for completion in Summer 2020, Phase 1 will deliver 924 bed spaces, as well as a student amenity building which will serve as a village centre for the newly developed residential precinct. The UCD Moore Centre for Business and the development of Newman House to accommodate the Museum of Modern Literature both open in September 2019.

In December, I announced the departure of Professor David FitzPatrick, Principal of the UCD College of Engineering and Architecture, who was appointed as President of Technological University, Dublin. My personal thanks to David for his dedication and contribution to the University and to Professor Michael Bruen who undertook the interim Principal role until the appointment of Professor Aoife Ahern as Principal and Dean of Engineering in June, with Aoife becoming the first female Dean of Engineering in UCD's long and distinguished history.

In January, we elected the Sixth Governing Authority, a group of individuals dedicated to serve the wider interests of the University, while representative of the diversity of our faculty and staff. At its first meeting, the GA unanimously agreed to appoint Marie O'Connor as chair for a five-year term. This is the first time in our history that a woman has been appointed to this role. I would like to express my thanks to the outgoing Fifth Governing Authority and its chair, Eugene McCague for their dedication to the University during their term. I also note that this is the first gender-balanced GA in the University's history and has the greatest number of independent (external) members. All these advances bode well for the future development of UCD.

Pictured at the UCD Alumni Awards Ceremony are (I-r) Dr Mike Bryne, UCD Alumni Award winner in Science; Pat Kenny, MC and UCD Alumnus; Jane Ann McKenna UCD Alumni Award winner in Business; Dr Ann Derwin, UCD Alumni Award winner in Agriculture and Veterinary Science; Dr Rhona Mahony, UCD Alumni Award winner in Health Sciences; Professor Andrew J Deeks, UCD President; Fintan O'Toole, UCD Alumni Award winner in Arts and Humanities; Dr Gráinne Healy, UCD Alumni Award winner in Social

Sciences; Rob Kearney, UCD Alumni Award winner in Sport; Dr Julie McEnery, UCD Alumni Award winner in Research, Innovation and Impact; and John Carey, UCD Alumni Award winner in Engineering and Architecture. Missing from the photo is Vincent Keavney, UCD Alumni Award winner in Law.

■ UCD ■ UNIVERSITY ♣ CLUB ♣

Faculty and staff pictured with the President at the official opening of UCD University Club in May.

Steven Holl of Steven Holl Architects, Prof Orla Feely, UCD Vice-President for Research, Impact and Innovation and Prof Andrew Deeks, UCD President admiring the model for UCD's Future Campus.

In May, we hosted the Annual Meetings and Presidents' Symposium of the World Universities Network (WUN), welcoming representatives from 23 universities to campus. The occasion offered an excellent opportunity to showcase our extensive campus and its facilities, and our achievements over the last five years. Highlights of the conference included a special session on Student Mental Health, and a Presidents' Symposium which addressed the topic 'Liberal Education for the 21st Century'. The UCD Students' Union also organised and facilitated the first WUN student forum, which was received very well and highlighted the strengths and abilities of our students.

Education

A university is about people, empowering faculty, staff and students to excel in everything they do. A university is about working together, creating a community where encouragement, support and collegiality underpins ambition and makes the university a special place to work and study. UCD is a strong example of this ethos, and I would like to acknowledge the many staff, centrally and in Colleges and Schools, who are involved in the day to day business of ensuring the University works. We take so much of what we do for granted; our ability to register 33,300 students to their programmes; to undertake almost 288,000 individual assessments; and to facilitate over 1.75 million visits to our libraries. This year was a period of both reflection and preparation. We approved new academic regulations which will significantly change the governance that underpins our education. They will create opportunities for innovation in the delivery of programmes, provide for work placements and internships, encourage international exchange and provide further clarity for students and faculty on assessment and feedback. We also reviewed the 'student feedback on modules' system to better understand how feedback from students can be used more effectively. The resulting changes of these initiatives will have real impact as they are embedded in the coming years.

Over the last year, we have continued to attract the highest calibre of students from Ireland and globally by spreading our reputation for quality education, exceptional student experience and impactful research through strong brand campaigns. We retain our position as university-of-first-choice among CAO applicants and as the most popular Irish university among international students coming to Ireland.

Research

For the second year in a row, UCD researchers secured a record total in external research grants. This year's total of \notin 151 million represents an increase of \notin 29 million, or 24%, on 2017/18, and is 55% greater

than the total achieved in 2016/17. This is an outstanding figure and reflects the quality and commitment of our researchers and research support staff.

A number of large grants in particular contributed to this success. UCD has a significant presence in a number of Science Foundation Ireland (SFI) Research Centres that received second-round funding this year, and two Technology Centres hosted by UCD and funded by Enterprise Ireland and IDA Ireland also received funding. All of these centres also receive significant funding from a variety of industrial partners. We also had success in schemes newly introduced in 2018/19, in particular the SFI Centres for Research Training (CRT) and the Disruptive Technologies Innovation Fund (DTIF), supported by the Department of Business, Enterprise and Innovation. In European funding, we saw further success with the European Research Council and the Marie Skłodowska Curie Actions in particular.

Global Engagement

We continue to progress the UCD Global Engagement Strategy, with a number of significant achievements this year. A key element has been the design and launch of a Global Partnerships Framework, which will support UCD to identify and nurture key institutional partnerships around the world.

On campus, international student numbers increased further to 8,428, representing almost 29% of all students on UCD's Dublin campuses, and bringing diversity to our community with students from 136 different countries. Beyond Dublin, UCD enrols almost 4,000 students in programmes taught overseas, with strong growth experienced this year in our China-based Beijing-Dublin International College.

Equality, Diversity and Inclusion

Advancing equality, diversity and inclusion (EDI) in a university setting requires constant attention to the challenges faced by faculty, staff and students, the organisational policies, practices and cultures and also the unique opportunities which a university has for distinctive thinking and innovative initiatives. Key innovations this year included the appointment of College Vice-Principals for EDI who provide a key point of engagement between University policies and committees and Schools.

Six UCD Schools and one College (which includes a further six Schools) successfully achieved Athena SWAN bronze awards since November 2018. Each of these Schools/Colleges has established EDI committees to support the implementation of their gender equality action plans. These awards will have a significant impact in terms of mainstreaming gender and the broader EDI agenda across the University through the implementation of local level initiatives. Over twenty UCD Schools are currently engaged with the Athena SWAN process at various stages.

Strategic Partnerships

Building Partnerships, one of the University's six Major Strategic Initiatives, is an integral part of our vision for the growth and development. Over the last year we have made further significant progress in building partnerships with organisations based here in Ireland and internationally, in areas such as talent development, research and innovation and corporate social responsibility. Building partnerships with industry and other organisations in a structured way is crucial to enable UCD to maximise our relevance and impact on society, while at the same time augmenting our student experience and researcher engagement.

We continue to strengthen our relationship with industry by building major strategic partnerships with a select number of organisations. UCD's major strategic partnerships include: AIB, Bristol-Myers Squibb, Dún Laoghaire-Rathdown County Council, Genomics Medicine Ireland, ICON plc, Intel, Mainstream Renewable Power, Microsoft, Origin Enterprises plc and PwC.

ICON and UCD are now entering the second phase of their strategic partnership, which includes the ICON University (a partnership with UCD College of Business, to support talent development within ICON), together with collaboration with UCD College of Health and Agricultural Sciences, primarily including the UCD Clinical Research Centre.

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Our most important achievement in the area of **Equality, Diversity and Inclusion** was the appointment of the first gender-balanced Governing Authority in the history of the University."



Prof Imelda Maher. Dean of Law; Keynote Speaker Ambassador William L Swing; and UCD President Prof Andrew Deeks with the Sutherland Family. On Friday 29 March, 2019 the UCD Sutherland School of Law hosted a memorial event for Peter Sutherland. Peter was one of UCD's most distinguished alumni on both a national and international stage. Together with Peter's family, friends, former classmates and colleagues, UCD School of Law gathered to pay tribute to this accomplished man. Lauded as a humanitarian and champion of migrants, Peter built a global reputation over a lifetime of achievements in law, business and international affairs.

AIB, through its strategic partnership with UCD, has enabled substantial investment to be made in support of a range of education, research and innovation activities and initiatives, including the establishment of the AIB Chair in Behavioural Economics.

The successful Intel/UCD Masters Student Scholarship Programme continues, and I participated in the third annual Scholarship Awards Ceremony at Intel's campus in Leixlip in October 2018. We are also grateful for Intel's support for and involvement in I-Form, the UCD-led SFI Advanced Manufacturing Research Centre.

This year has also seen a continuation of existing projects with Dún Laoghaire-Rathdown County Council, such as the UCD Festival, Access to education and Smart City initiatives.

In partnership with Microsoft, UCD is developing Ireland's first academic programme to help improve digital policy creation. The curriculum aims to support Ireland's ambition to become the digital leader of Europe and to ensure that industry, government, and policy-makers keep pace with technology so that laws and policies can be relevant to the challenges of a digitised world today and into the future. The first of the Certificate and Diploma classes for Digital Policy Studies will take place in the 2019/20 academic year and to facilitate its delivery, the appointment of an Assistant Professor in Digital Policy is planned. The Masters programme will be available in 2020.

UCD and Genomics Medicine Ireland (GMI), have announced one of the largest academic and industry

partnerships in genomics research to be announced globally. As part of a large-scale population research programme across more than 60 diseases, it will examine the relationship between genetic variation and human disease in up to 10% of the Irish population. GMI will also target key initiatives to build capacity, train and develop the next generation of medical professionals in the area of genomic medicine which will be critical for Ireland's engagement and success in this groundbreaking field.

PwC and UCD are developing a strategic partnership which will promote education and talent development. Representing a large investment over a seven-year period, the agreement will see PwC and UCD work together on education and talent development, thought leadership and innovation and corporate social responsibility.

CONSUS, the strategic partnership between UCD and Origin Enterprises, continues in the area of future farming systems. The multidisciplinary research teams at UCD will use their research expertise in data science and agriculture, together with Origin's industry experts, to address the issue of crop sustainability, a major global food security challenge.

UCD and Bristol Myers Squibb are developing a strategic partnership in talent development, research and innovation and corporate social responsibility. Future research collaboration will see both organisations working together in the area of advanced biopharma manufacturing.

Reconnecting with our Global Alumni

The worldwide UCD alumni network is a powerful one, and we now have more than 280,000 alumni in 169 countries. 30% of these alumni are overseas, with the majority in the US, Singapore and the UK, but we also have significant numbers of alumni over Asia, Australia, Canada and Europe. We have now established global chapters in more than 42 countries

Our influential alumni continue to be one of the University's greatest strengths, speaking to our reputation as Ireland's Global University. I am pleased that over the past year, alumni engagement has truly flourished. The number of annual alumni events has grown from 161 to 242, and attendees from 26,000 to more than 35,000. Some highlights over the last year have included the 5th UCD Alumni Awards in November, where we honoured ten outstanding alumni nominated by the UCD community for achievements in the arts, health, veterinary medicine, science, business, agriculture, engineering, academic research, social science and law.

Another highlight was the UCD Festival on 8 June, where over 20,000 alumni and other members of the UCD community joined us for a day of creativity, innovation, discovery and research at over 100 events across campus.

Over the last year we have also seen significant growth in our online alumni engagement, with an increase of 30% in the number of alumni (45,000) engaging with our online communities. We've also seen a significant growth of 29% in our newly launched alumni volunteer programme, with more than 3,000 alumni now actively engaged in volunteering for UCD. Their varied contributions include chapter representatives all over the world, panellists and career mentors, and giving of time and expertise to improve the experience of UCD students.

Philanthropic Giving

Not only are our alumni giving of time and knowledge, but a growing number are directly supporting the student experience by monthly funding student supports and services like scholarships and mental health services. Over the last year, more than 4,400 alumni contributed €3.3 million to directly fund student supports. Our alumni and donors continue to have a far-reaching influence at home and abroad. I warmly thank each of them for their ongoing support, commitment and encouragement to fulfil our role as Ireland's leading and most global university.

This year, an extraordinary donation from a great friend of UCD has helped us advance our Future Campus ambition to develop new, state-of-the-art teaching, learning and research facilities for students, faculty and staff.

I would like to thank and acknowledge a truly extraordinary gift from Angela Moore in memory of her late husband, UCD alumnus Dr George Moore. As a result of this gift, and with the generosity of some of our corporate partners, the UCD Moore Centre for Business will open in September 2019. The UCD Moore Centre for Business will double the size of the UCD Lochlann Quinn School of Business, and will feature a range of new facilities, enabling business students to tackle complex ideas facilitated by the latest advances in learning technology.

September will also see the opening of UCD Naughton Joyce Centre encompassing MoLI, the Museum of Literature Ireland in St Stephen's Green. In partnership with the National Library of Ireland, MoLI celebrates our internationally-renowned literary culture and heritage. A leadership gift from the Naughton Foundation and further significant support from Fáilte Ireland and other donors has brought this captivating landmark institution to life. The generosity of our donors towards this project has shown the kind of exciting vision that can be realised when philanthropy joins with public institutions to create new and vibrant endeavours.

I am humbled by the generosity of our alumni, friends and corporate partners who have supported our campaigns, invested in our talented students through scholarship support, helped develop our leading faculty, invigorated our research and galvanised our capital development ambitions. I am grateful to them for their commitment and confidence in the work we do and the future we are striving to create.

Community Engagement

UCD in the Community has continued to engage with community-based organisations during 2018/19, including Volunteer Day in October 2018, which included a Volunteer Fair and various workshops across campus.

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I am humbled by the generosity of our alumni, friends and corporate partners who have supported our campaigns, invested in our talented students.» The annual Dublin Simon Community care package appeal took place in December, in collaboration with Terenure Presentation Community College as part of their Localise programme. Thanks to the generosity of UCD faculty, staff and students, 270 care packages of essential items for the rough sleepers of Dublin's inner city were created.

UCD in the Community was delighted to once again partner with Age & Opportunity for their Touchstone course, which took place weekly for eight weeks in UCD with twenty participants from the local community. Touchstone is a short course which aims to develop the skills and knowledge of people who wish to play a part in helping to make their communities more age friendly.

Following on from the success of 2018, UCD and the Dublin Lions Club, in association with Dublin Simon Community were delighted to organise Hope Fest, a wellbeing festival for people experiencing homelessness on Saturday 18 May in the Iveagh Gardens. The event had a 'festival' feel, with catering, music including the UCD Community Choir and a wellness area, where our guests availed of numerous services, such as haircuts, a chiropodist and yoga. Thank you to the UCD faculty, staff and students who volunteered prior to and during this event.

UCD Explore offers an exciting and educational space for primary school students to play and learn through science, technology, engineering, arts and maths. In 2018/19, funding from Science Foundation Ireland and Intel Ireland allowed 1070 pupils from 34 schools participate in UCD Explore's schools' programmes.

In Conclusion...

2018/19 has been an extraordinary year for UCD, but, looking back as we have done during the strategic planning process, the last five years have been an extraordinary time in the history of the University. Despite the unwillingness of the Irish Government to address the higher education funding crisis, UCD has moved forward to the extent that we are now bigger than ever before, and performing better than ever before, in terms of our student experience, our research quality, quantity and impact, and our engagement. Notably, over the last five years, our international engagement is up 50%, our industry engagement is up 120%, and our alumni engagement is up 300%. Only 35% of our income now comes from state operating grants, the lowest ratio in our history, and the lowest ratio of Higher Education Institutions in Ireland. At the same time, we have the greatest number of students (FTE), the greatest number of faculty and staff, the greatest number of international students, the greatest number of students from non-traditional backgrounds, and the highest level of philanthropic support. These are achievements that the whole UCD community should rightfully be proud of, and I would like to thank each and every member of our community who has contributed to this extraordinary level of performance.

This report provides more detail of these achievements and others which I do not have space here to mention. I hope you will enjoy reading of our successes and will celebrate together with us. I look forward to your continuing support in the future.

19 Deels

Professor Andrew J Deeks UCD President

UCD 2014-2019 **Five Years of Remarkable Progress** 12 Key Indicators of Achievement



+5% Student Satisfaction



+5.5% Research Quality



+302% Alumni Engagement



+39% Non-exchequer Income



-4.2% Student: Faculty Ratio



+100% Number of Spin-out Companies



+131% Industry Engagement



+13.3% Number of Employees



+50% Global

Engagement



+53% Philantropic Support



+23% Research Quality



+10.5% Number of Students

Notes

Student Satisfaction: improvement in Irish Survey of Student Engagement score

Student:Faculty Ratio: % increase in student:faculty ratio Global Engagement: % increase in non-EU students Alumni Engagement: % increase in number of alumni events Industry Engagement: % increase in number of industry co-authored SciVal publications **Research Quantity:** % increase in UCD-authored SciVal publications

 $\label{eq:research} \begin{array}{l} \mbox{Research Quality: } \% \mbox{ increase in Field-Weighted Citation} \\ \mbox{Impact, based on five-year average} \end{array}$

Number of Spin-out Companies: % increase over previous five years

Philanthropic Support: % increase over previous five years Number of Students: % increase in students on UCD's Ireland campuses

UCD campus development



Aerial view of the Belfield Campus including concept 3D renders of the proposed Future Campus Phase 1 buildings: Centre for Creativity and Centre for Future Learning; also including the new student residences due to open in September 2020.

UCD BY NUMBERS

UCD Student Statistics Ireland Campuses



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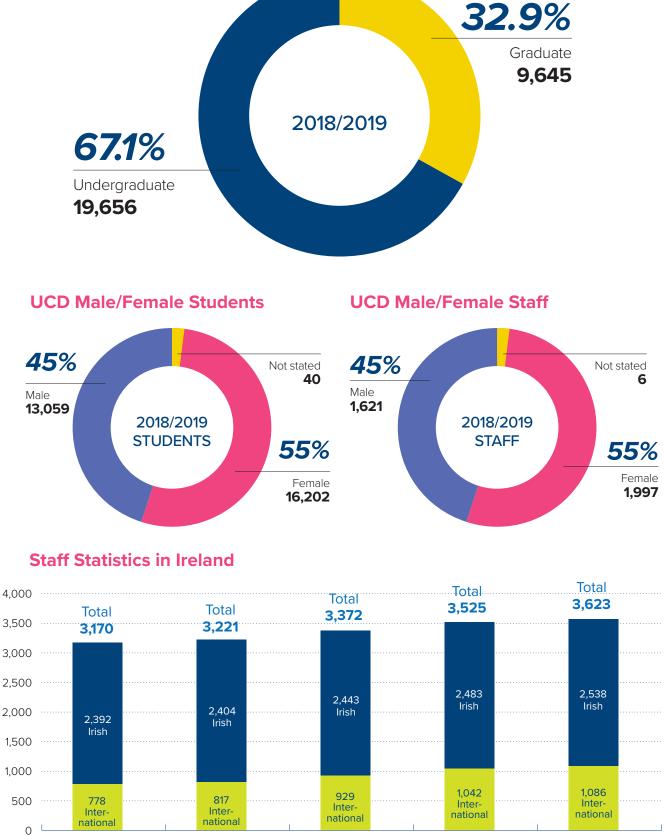


UCD Student Statistics Overseas Operations



UCD Students in Ireland

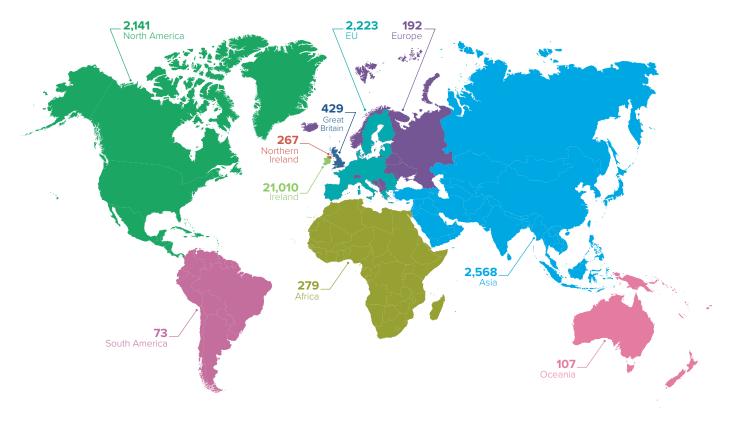




2014/15 2015/16 2016/17 2017/18 2018/19

UCD International Students by Region

2018/19



UCD Undergraduate and Graduate Numbers by Discipline

Ireland 2018/19

Subject Area	Undergraduate	Graduate	Total
Generic programmes and qualifications	281	-	281
Education	23	616	639
Arts and humanities	3,489	405	3,894
Social sciences, journalism and information	2,041	880	2,921
Business, administration and law	3,777	2,376	6,153
Natural sciences, mathematics and statistics	2,280	979	3,259
Information and Communication Technologies (ICTs)	490	732	1,222
Engineering, manufacturing and construction	1,668	1,101	2,769
Agriculture, forestry, fisheries and veterinary	1,752	564	2,316
Health and welfare	3,697	1,971	5,668
Services*	158	21	179
Total	19,656	9,645	29,301

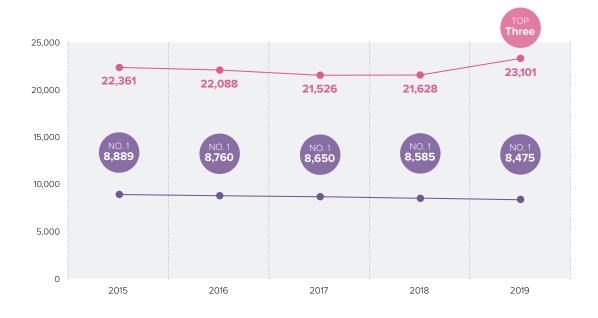
Figures are classified under the International Standard Classification of Education (ISCED) as used by the Higher Education Authority (HEA) and more widely to facilitate comparison of education statistics across countries on the basis of uniform and internationally agreed definition.

* Services include programmes such as Safety and Health at Work.

Top 20 Countries UCD Alumni*



CAO 1st Preferences





EDUCATION

Introduction by the Registrar and Deputy President

A university is about people. It's about empowering faculty, staff and students to excel in everything they do. It's about working together, creating a community where encouragement, support and collegiality underpins ambition and makes our university a special place to work and study.

I am delighted to present this summary of some of UCD's achievements in education and experience this year. It is important to acknowledge the many staff, centrally and in Colleges and Schools, who are involved in the day to day business of ensuring the University works. We take so much of what we do for granted; our ability to register 33,900 students to their programmes; to undertake almost 288,000 individual assessments and to facilitate over 1.75 million visits to our libraries.

This year was a period of both reflection and preparation. We approved new academic regulations which will significantly change the governance that underpins our education. They will create opportunities for innovation in the delivery of programmes, provide for work placements and internships, encourage international exchange and provide further clarity for students and faculty on assessment and feedback. We also reviewed the 'Student Feedback on Modules' system to better understand how feedback from students can be used more effectively. The resulting changes of these initiatives will have real impact as they are embedded in the coming years.

In October 2019, UCD will undergo an institutional quality review in 2019 as part of a 7-year review cycle. In preparation, we reviewed the effectiveness of our quality processes through University-wide consultation, and in July submitted our Institutional Self-Evaluation Report and Institutional Profile to Quality and Qualifications Ireland (QQI). Cyclical review is an important opportunity for us to demonstrate our commitment to ongoing reflection and enhancement of our activities. In March we hosted the third 'Work Smarter Together' event which promotes and recognises the creativity and innovation of the UCD community. In addition, 300 staff undertook Agile training programmes, building our continuous improvement capabilities. We introduced a new Virtual Learning Environment to improve the quality of our students' learning experience and published the UCD Career Development and Employment Strategy to guide our work on supporting and engaging students.

As the current University strategy comes to an end, we remain focussed on delivering an education experience that is holistic, and that does not define students by their entry route or personal need. The theme of the UCD Access Symposium held in May was *You'll never walk alone*, highlighting the importance of creating an inclusive university, where all students feel that they are welcome and belong. Students do not wear labels. Our aim is to move to a place where from the outset, our curriculum and processes are appropriate for all students, reducing the need for separate accommodations and the creation of labels. We have made progress towards this goal and look forward to seeing the positive impact of our achievements on the education of our students.

Mck

Professor Mark Rogers Registrar and Deputy President



Prof Mark Rogers pictured with some of the 2018/19 Agile alumni receiving their Green Belt certificates (I-r): Derek Reilly, Dr Sabine Harrison, Dr Dimitrios-Stavros Kapetanakis, Maria McDonald, Iseult Ó Síocháin, Pia Polotto and Tom Cannon.

Taught Programmes and Disciplines

UCD has continued to enhance the student academic experience across our taught programmes and disciplines including reviewing our academic regulations; developing new approaches to assessment; and prioritising career development and employability. In November, to celebrate seventy years of commitment to lifelong learning, we hosted a series of free lectures as a 'taster' of university study, which attracted over 600 lifelong learners. We also introduced four entry pathways through Open Learning in Arts and Humanities, Social Sciences and Law and Science. The provision continues to grow with over 190 students now enrolled.

Review of Academic Regulations

In line with our strategic objective to offer students a fully outcomes-based curriculum with flexibility in learning and assessment, we undertook an indepth review of our Academic Regulations. Based on contributions from faculty and Colleges and Schools, a new single set of regulations for all taught programmes in the University was developed with separate regulations for graduate research students. Specific measures were included to ensure transparent and fair grading processes, and timely and effective feedback to students on all assessed work. New programme structures were introduced to promote programme coherence and timely and flexible student progression. The review was supported by UCD University Secretariat and the new regulations will come into effect in September 2019.

The new regulations also necessitated the roll-out of a new system to capture curriculum information. Designed by UCD Registry and UCD IT Services, it allows faculty and staff to input information related to modules, majors and programmes. A new curriculum browser was also developed to provide improved search capabilities.

Assessment

The new academic regulations accommodate possibilities for new means of assessment, such as integrated assessment across multiple modules and the assessment of learning outcomes achieved outside traditional module structures. The 'Assessment Enhancement Implementation Framework' project was established this year to develop this further. To promote new approaches in assessment, UCD, in conjunction with IADT, published *Inclusive Assessment & Feedback Universal Design Case Studies from IADT and UCD.* This important publication illustrates a range of innovative approaches used in assessment whereby students are co-creators of their learning.

Blended Learning

This year we began the transition to Brightspace, our new Virtual Learning Environment (VLE). Brightspace has a fully responsive interface, and a programmatic view which allows students to view past and present modules as they progress through their learning journey. Combined with a more consistent experience across modules through a standardised look and feel, the learner experience has been significantly improved. UCD IT Services and UCD Teaching and Learning delivered workshops to faculty to ensure a smooth transition and showcase the new features offered by Brightspace. UCD's Educational Technology Advisory Network (ETAN), in conjunction with UCD Vice-Principals for Teaching and Learning, UCD Teaching and Learning and UCD IT Services, also facilitated the UCD EdTECx series based on the theme Beyond Transition: Leveraging the Potential of Brightspace.

Brightspace was configured to support the new academic regulations, incorporating trimesters, updated conversion scales and the ability to provide timely feedback using more delivery methods than before.

Elective Provision

We continued to broaden the curriculum through the provision of new and innovative elective options. The range of Discovery Modules that students can take as electives expanded this year with topics of global significance such as Global Development Goals, War, Childhood, Energy, Climate Change and Policy. These modules are designed to deepen students' understanding of different disciplinary perspectives on topics of significance. Taught across multiple schools, they include lectures based on cutting edge research.

Career Development and Employability

In 2018 and 2019 the QS Graduate Employability rankings placed UCD 75th (2018) and 74th (2019) in the world while retaining No 1 position in Ireland. In consultation with students, faculty, staff and employers on career development and employability, we published the new University 'Career Development and Employability Strategy'. The Strategy will guide our work in supporting students to develop their career potential and enhance their future employment opportunities.

Quality Assurance

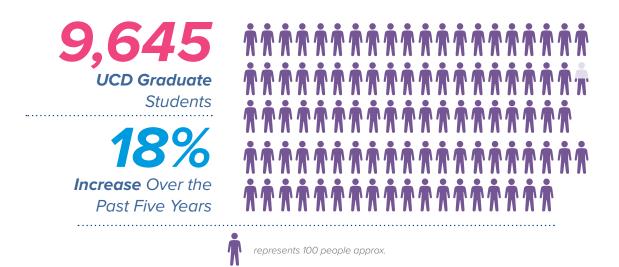
UCD takes a multi-layered approach to quality assurance and quality enhancement through key decision-making points at University, College, School and unit levels. Our Periodic Quality Reviews of Schools and support units are informed by key metrics aligned with the UCD Strategy 2015-2020. This year reviews were completed for the UCD Schools of Education; Psychology; Irish, Celtic Studies and Folklore; Biomolecular and Biomedical Science; Nursing, Midwifery and Health Systems; UCD College of Business; UCD Access and Lifelong Learning; the Beijing-Dublin International College and as a UCD Linked Provider, the Institute of Banking. A quality culture at UCD is also demonstrated through the ongoing review and enhancement of policies and procedures, such as the Academic Regulations.

Graduate Research

This has been a particularly productive period for UCD in furthering our graduate quality assurance agenda, through the review, analysis and dissemination of UCD data from the National Student Engagement Survey, and the promotion of our transferrable skills offerings to students. This year we also expanded the UCD graduate network through an important agreement with the EU Commission, and our commitment to global engagement continued to grow as we shared our best practice and expertise with other international universities.

PhD Education

PhD graduates inherently acquire advanced research and analytical techniques through their research activity and a range of transferable skills through the completion of their research and broader professional development. This year UCD Graduate Studies collaborated with the UCD Writing Centre to offer a week of intensive training workshops for graduate research students. 'Postgraduate Week' was a great success in supporting doctoral students' writing skills and is an important new addition to our Transferable Skills initiatives. Transferable skills workshops are a pivotal component of a research degree in UCD. This year, in consultation with UCD Agile and as part of a yellow belt process improvement project, we reviewed the uptake of workshop places by implementing lean methodologies, tools and techniques. The successful outcome saw an increase in the attendance to registration ratio this year, up from 33% to 38%.



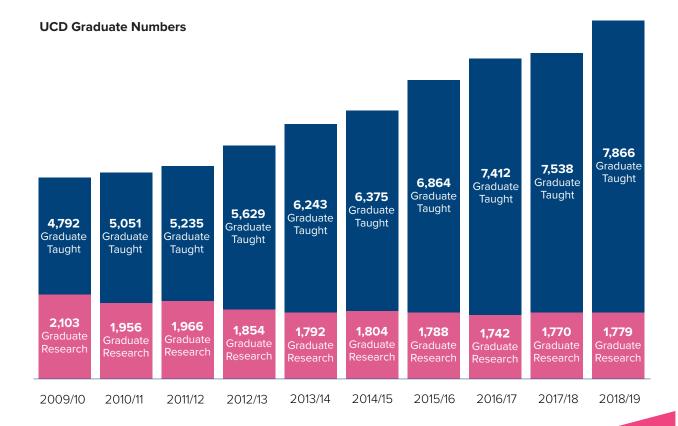
UCD is committed to research in higher education, teaching and further enhancing the professional development of faculty in teaching and research supervision; and acknowledging faculty as excellent teachers through **Teaching Awards and Fellowships.** "

The Careers and Skills Consultant for Doctoral Students is a role unique to UCD, and offers individual career coaching, employer engagement and cohort-specific and interdisciplinary professional skills training to our students. This year UCD was recognised at a national level, receiving the Association of Higher Careers Services Award, for its innovation and excellence in career support for graduate research students. This success can be attributed to leadership from the UCD Careers Network, UCD Graduate Studies and colleagues from UCD's Research Institutes, Colleges, UCD Research, Innovation and Impact and Student Advisers. The Graduate Research Student Handbook was published this year. The Handbook outlines the guidelines, policies and procedures for UCD research degree programmes. This is a vital document for our research community as it brings together all key information in one place, aiming to help the reader to locate supports, services and key information easily.

Last year's UCD winner of the Thesis in Three competition, based in the UCD Institute of Food and Health, won the People's Choice Award in the U21 Three Minute Thesis competition in October 2018, representing UCD globally.

Postgraduate Research Student Feedback

In 2018, the pilot of the Irish Student Engagement Survey for Postgraduate Research students (ISSE-PGR) was launched. UCD promoted the completion of the survey to graduate research students, leading to a response rate in UCD of 39%, higher than the national response rate of 32.5%. Close to 600 Graduate Research students completed the survey with most being PhD students (531). UCD Graduate Studies analysed the survey data from the pilot ISSE-PGR and generated a comprehensive report of the findings under the survey's themes, reviewing both the quantitative and qualitative data. Data were collated for the University as a whole and compared to equivalent institutions in the country, i.e. those with greater than 250 respondents. To inform Schools' and Colleges' quality enhancement planning, the data from each College were compared across the survey themes.





Pictured at the Presentation of UCD 2018 Teaching and Learning Awards (I-r), back row: Prof Breandán Kennedy, UCD School of Biomolecular and Biomedical Science; Dr Shane Bergin, UCD School of Education; Dr Sarah Morton, UCD School of Social Policy, Social Work and Social Justice; Niamh O'Donoghue, UCD School of Veterinary Medicine; Dr Zeljka Doljanin, UCD Writing Centre; Niamh Kelly, UCD Writing Centre; Prof Mark Rogers, UCD Registrar and Deputy President; Dr Scott Hamilton, UCD Writing Centre; Dr Caitriona Cunningham, UCD Physio Hub; Dr Sinead Mc Mahon, UCD Physio Hub; Karen Cradock and Ciaran Purcell, UCD School of Public Health, Physiotherapy and Sports Science.

Front row: Suzanne Bailey, UCD Sport; Dr Ulrik Mc Carthy, UCD Physio Hub; Dr Catherine Blake, UCD Physio Hub; Dr Linda Dowling-Hetherington, UCD School of Business; Dr Katie Mishler, UCD Writing Centre; Dr David McKinney, UCD Writing Centre; Dr Audrey McNamara, UCD Writing Centre; and Thomond Coogan, UCD Access and Lifelong Learning.

International Collaborations

UCD hosted the 14th Annual ORPHEUS (Organisation for PhD Education in Biomedicine and Health Science in the European System) conference in March. The theme *Quality Training Environments for Biomedical Researchers* attracted over 120 participants from across the world. As an executive member of ORPHEUS, UCD is enabled to share knowledge with faculty and staff on best practice in PhD education.

UCD was invited to share our expertise in research supervision at the Postgraduate Supervision Conference at Stellenbosch University in March on *The Global Scholar: Implications for Postgraduate Studies and Supervision* and by invitation to the University of Johannesburg. UCD was also invited to share expertise on the mental health and well-being of graduate research students at the U21 Health Sciences Group meeting in Melbourne in September, the U21 Deans and Directors of Graduate Studies meeting in Birmingham in March and as a keynote at the UK Council for Graduate Education's first International Conference on the Mental Health & Well-being of Postgraduate Researchers, in Brighton in May.

New partnership in PhD Education

This year saw a significant development through UCD's new partnership with the Joint Research Centre (JRC) of the EU Commission. The JRC is the EU Commission's science and knowledge service providing independent scientific advice and support to EU policy-making. In an exciting departure, the JRC put out a call to participate in a new initiative of Collaborative Doctoral Partnership. The objectives of the JRC in the establishment of this scheme are to initiate strategic collaborations in selected thematic fields with higher education institutions characterised by research excellence and international reputation in the field in order to:

- train a new generation of doctoral graduates in science and technology with a focus on science policy
- co-develop, co-host and co-supervise doctoral studies between higher education institutions and the JRC
- strengthen collaboration between the JRC and higher education institutions by promoting mutual enhancement of related skills and competencies, combining existing knowledge and capacities, and enhancing networking in key scientific areas.

UCD secured two collaborative partnerships awarded across Europe from 138 submissions. This collaboration will allow UCD PhD students under the supervision of a UCD Principal Supervisor to carry out their doctoral research both in UCD and in one of the JRC research facilities in Europe and thereby benefit from furthering their academic research while also being integrated into the heart of the EU Commission's science-policy interface.

Teaching and Supervision

UCD is committed to research in higher education, teaching and further enhancing the professional development of faculty in teaching and research supervision; and acknowledging faculty as excellent teachers through Teaching Awards and Fellowships. New developments in the Research Supervisor development programme saw the addition of a new international contributing institution, the Karolinksa Institute in Sweden. Our work and programme focused on key topics being addressed within doctoral education both nationally and internationally.

Centre for the Study of Higher Education

The UCD Centre for the Study of Higher Education hosted its first major international conference *Getting Sustainability into Higher Education Curricula* in May. The conference was hosted in conjunction with the Worldwide Universities Network Global Challenge in Higher Education, a global higher education and research network of 23 leading universities, spanning 13 countries on six continents. We were pleased to welcome Professor Simon Marginson, University of Oxford, who gave a keynote address on *Global higher education into the 2020s: openness, mobility and barriers*, and Professor Emerita Sue Clegg of Leeds Beckett University who spoke on *Inclusivity, equity, and quality: discursive tensions and structural constraints*.

Professional Development

Through its UTL accredited programmes, UCD Teaching and Learning offer faculty at various stages of their careers, opportunities to review and improve their teaching skills and their understanding of approaches and theories in effective higher education. UCD faculty's commitment to pedagogy and scholarship is increasingly evident with over eighty participants annually enrolling to accredited programmes. To further our strategic objective of developing a distinctive global culture, this year saw the introduction of an exciting new module entitled 'Teaching Across Cultures'. This module focuses on fostering awareness and understanding of teaching across cultures, engaging those who teach diverse international and intercultural cohorts in critical reflection of their personal and professional intercultural competence.

Teaching Fellows

The Fellowships in Teaching and Academic Development play a key role in UCD's faculty development structure and focus on university-wide enhancement initiatives in teaching and learning. Two Fellowship research teams were appointed in December for a two-year period to focus on strategic policy and practice-based research on the themes: 'Teaching and Learning Across Cultures' and 'Designing for Learning in the VLE'. Fellowship activities are informed by international research and experts in the field and serve to enhance UCD's reputation for excellence in educational innovation and scholarship.

Teaching and Learning Awards

The UCD Teaching and Learning Awards are the highest honour bestowed on faculty and staff by the University in recognition of teaching excellence and outstanding contribution to student learning. This year, awards were presented at a ceremony in February by the

Pictured at the Access Symposium are (I-r): Prof Andrew Deeks, UCD President; Prof Grace Mulcahy, Chair of UCD Widening Participation Committee; Prof Phil Scraton, QUB; and Dr Anna Kelly, Director of Access and Lifelong Learning.



Pictured at the UCD See One, Be One Role Model Awards ceremony are (l-r): Conor Moore, Role Model award recipient; Prof Grace Mulcahy, Chair of UCD Widening Participation Committee; and Fiona Sweeney, UCD Access and Lifelong Learning.

Registrar and Deputy President, honouring six individuals and three teams, who made a significant impact on our students' learning experience. The call for nominations for the awards was met with an enthusiastic response from the UCD community, with 2,363 nominations submitted by students, faculty and staff. Over 90% of nominations came from



students resulting in 53 College-level awards and nine at University-level. The nominations attested to exceptional teaching skills and the care and effort invested in student development, inside and outside the classroom. They also highlighted the impact teaching had on student confidence and their overall University experience. Exceptional communication skills, the ability to explain difficult topics and a flexible approach to teaching were also highlighted.

Research Supervision

The Research Supervisor Support and Development programme (RSSDp), which UCD established with TCD and RSCI, ran from February to May 2019. This programme is unique in the sector for peer-to-peer learning and informs, supports and develops research supervisors from all three institutions. This year we were delighted to invite a new member to the RSSDp, the Karolinska Institute, to lead discussion at our Research Supervisor Symposium in February. This event focused on mental health, a key development area for supervisors. We also discussed supervising doctoral students in a global university and the impact it has on the role of supervisor in the 21st century. The commitment of UCD faculty to the importance of supervision was evident this year, with over 40 UCD supervisors participating. We continue to promote the elements required to create a positive and successful

academic experience for both supervisor and student, and to date over 120 UCD supervisors are now certified in supervision.

Each year we measure the impact of the RSSDp through participant surveying. This year the longerterm impact of the programme was examined by questioning over 100 certified participants on changes to their knowledge, skills and supervisory practice as a result of participating in the programme. Respondents highlighted the positive impact of the training on their supervisory practice and notably an increased confidence to handle the challenges associated with doctoral supervision.

Academic Support for Students

UCD provides a wide range of academic and personal supports, accessible to the entire student body, with additional specialised help available for those with individual needs. They range from personal guidance, mathematics and writing support, through to assessment and social initiatives such as the 'chat café', 'film at five' and 'walk & talk' sessions. We also connect with the neighbouring community; this year UCD Library assisted senior citizens in learning essential 21st century digital skills.

A key focus this year was on of inclusivity for all students as we continued to promote the University for

UCD provides a wide range of academic and personal supports with additional specialised help available for those with individual needs. » All initiative by working with Programme Boards and Units on the delivery of seamless student supports. UCD Access and Lifelong Learning provides a range of supports for students registered with their service including individual guidance, referral to mainstream supports, the provision of weekly academic workshops; disability and learning support, including individual needs assessment, examination accommodations, and assistive technology. The publication we launched, *Toolkit for Inclusive Practice in Higher Education,* is an excellent resource to support students, faculty and staff in adopting a holistic approach to making UCD an inclusive university.

This year the UCD Writing Centre engaged in almost 2,000 one-to-one writing consultations representing an increase of 13.7% from the previous academic year. The Writing Centre tutors also delivered 77 workshops, attended by 1,884 students. This is an increase of 19.7% in the number of attendees compared to previous year. The UCD Maths Support Centre maintains its success in providing support to students, with 5,560 visits and 3,878 one-to-one sessions.

A number of financial supports are made available to students, including:

 Cothrom na Féinne scholarship programme and the Student Assistance Fund (SAF) - eligibility is determined through means-testing (below an income level of €45,790), and students being from a designated equity group, or entry through the designated admissions routes (HEAR, DARE, MY, FET, UAP). In 2018/2019, 335 students each received €2,000 (living away from home) or €1,500 (living at home).

- Student Assistance Fund (SAF) €311,000 was distributed among 622 students. Funding was also provided to 55 lone parents and 25 part-time students. In January, the HEA announced support for access students studying the PME/Science Education programmes; 12 students received bursaries of €3,000 per annum.
- PATH 1916 Bursaries for eight incoming students, valued at €5,000 per student per year of study (prorata for part-time). A further 17 PATH bursaries were provided to continuing students.

The UCD LEAP (Live Engagement and Attendance Project), which in January received funding through a competitive HEA grant, aims to leverage the potentially transformative impact of data analytics on individual student engagement and progression within their chosen programme of study. Led in partnership by the UCD Dean of Students and UCD Vice-Principal for Teaching and Learning of UCD College of Health and Agricultural Sciences, the project is being piloted in UCD School of Veterinary Medicine. Student attendance is reflected using mobile technology that detects Bluetooth beacons in learning spaces throughout the campus. This is part of a broader UCD-led collaboration with DCU, funded by the HEA Innovation & Transformation Fund which allocated in excess of €1 million over three years.

University of Sanctuary

In recognition of the supports that have been made available to those entering third-level education from the asylum seeker community, UCD is recognised as a University of Sanctuary. This year financial



Pictured at the Graduate Sports Scholarship award ceremony are (I-r): Paul Kiernan, MSc Management Consultancy and Rugby Scholarship recipient and Colm Small, UCD Smurfit Graduate Business School.

UCD is committed to providing students with opportunities to develop interpersonal, intercultural and life skills within and outside the classroom through internships, volunteering and work placements. »

supports for students in the asylum process were enhanced with the extension of the Cothrom na Féinne Scholarship programme to this cohort in 2018. Of the 83 applications, 26 students were awarded scholarships, valued at €1,500 per year of study. A commitment has been made to continuously review and revisit the needs of these students.

Effective Virtual Engagement Platforms

UCD Mobile was updated this year to reflect a new layout and provide quicker access to services. First year students can now avail of a custom layout with more detailed orientation information and there is a Brightspace button linking to each student's individual study area. UCD Mobile now has the facility to send In-App messages to UCD Mobile users about important university events and deadlines.

Student Engagement and Life Skills

UCD is committed to providing students with opportunities to develop interpersonal, intercultural and life skills within and outside the classroom through internships, volunteering and work placements. We continue to remind our students of the value of international experiences and encourage them to engage in peer leadership activities.

Internships

Each year over 1,400 students undertake up to 1,800 work experience-related academic internships as an integral part of their programme of studies and these figures are growing. UCD Careers Network, formerly the Career Development Centre, has worked closely with UCD IT Services' Enterprise Application Group to develop a unique 'Internship Management Platform'. The internship process can now be delivered more efficiently and effectively, as the platform enables our Schools and Colleges to securely manage and store internship agreements and the associated student internship acceptance forms. An additional benefit of the system is that students who source their own internships can now submit them for approval via the platform. This has been especially impactful for programmes where most internships are secured by students themselves. More importantly, the new internship portal was designed to be as flexible as

possible and to facilitate engagement with internship hosts who are also important industry stakeholders. To date 80% of internship providers across UCD are using this portal and it will serve as an important resource collating data for initiatives, such as the QS Graduate Employability Rankings.

Student Experience Mapping

This year the UCD Agile focus was on systematic multidomain improvement initiatives centred on our students. The Student Experience Mapping Project (SEMP) was created and ran from January to May. Students told us how they navigate life at UCD, highlighting the key strengths, as well as some of the challenges they experience. Arising from the SEMP four change initiatives were approved for action: a 'findability' project focused on helping students find what they need in the support system; a 'trusted party' project based on recognising that students choose who they turn to for support and helping such 'trusted parties' connect students to the information and supports they need; a 'shaping living and learning' project focused on helping students shape the UCD environment we provide for them to their individual needs; and a 'variations' project focused on ensuring a consistent high level of student experience.

Celebrating Role Models

This year, 32% of undergraduate students had 'access' status, including 8.4% low-income; 11.6% students with disabilities; 9.9% mature; 5.7% part-time and 2.0% QQI. To help celebrate the success of previous generations of access students, the UCD Access and Lifelong Learning team launched the inaugural *UCD See One, Be One Role Model Awards* which celebrated UCD access graduates.

Alongside peer-mentors and student ambassadors from across the UCD community, UCD continues to inspire peer leadership through its Access Leader programme. Those who participate have their achievement recorded on their diploma supplement and may also use their experience towards a UCD Advantage co-curricular award. Acting as role models, in 2018, 85 access students inspired others to follow their footsteps. They also assisted UCD Access and Lifelong Learning with a range of events, including campus tours, seminars, and acting as digital ambassadors.



Pictured at the signing ceremony to mark the conclusion of an agreement between the EU's Joint Research Centre and UCD are, front row (I-r): Patricia Reilly, Deputy Chief of Staff for the EU Commissioner for Education Culture, Youth and Sport with Prof Barbara Dooley, UCD Dean of Graduate Studies and Deputy Registrar. Back row (I-r) are Prof Orla Feely, UCD Vice-President for Research; Dr Emer Cunningham, UCD Graduate Studies; Jerica Zupan, EU Joint Research Centre, Project Officer for CDP Program Scientific Development; Prof Denis Shields, UCD-JRC Principal Investigator-Genomics and Bioinformatics; Prof Padraig Cunningham, UCD-JRC Principal Investigator - Machine Learning; Susan Hedigan, Head of International Research Programmes, UCD College of Science; Dr Douglas Proctor, Director of UCD Global; Dr Mark Scanlon, UCD-JRC Principal Investigator Machine Learning; and Gerard Kiely, Head of the European Commission's Representation to Ireland.

This year also marked the eighth year of the UCD Future You Mentoring Programme, offered within 18 linked secondary schools, providing an opportunity for pupils to be mentored by UCD access students. UCD Library also supported over 400 Leaving Cert students, including students from DEIS schools, by making Library facilities and services available during May and June, so students had access to quiet spaces for study.

Through PATH funding, the establishment of a UCD-led consortium of five third-level institutions (UCD, IADT, MIE, NCAD and TCD), extended this mentoring model to the wider community. Over a hundred access students from all five institutions have trained as mentors and they took part in the Mentoring Summit in October. In April the Consortium launched the first Dublin Learning City Festival in the Hugh Lane Gallery, with the support of Dublin City Council and in June, it held a Creative Arts Summer School which was attended by sixty participants who spend one day in each college over the course of a week.

Student Health and Well-being

UCD enables students to proactively manage their health and well-being, and develop the attributes required to make the most of their wider university experience. Dedicated colleagues across the community, including student advisers, student clubs and societies officers, residential staff, counsellors, doctors, nurses and many professional administrators together provide their expertise towards this endeavour.

Student Advising

The UCD Student Advisory Service continues to expand to best meet the needs of students. An additional Student Adviser was appointed to Arts and Humanities programmes and a new Adviser appointed to exclusively support graduate research students. Unique within an Irish context, Student Advisers work across programme areas and collaborate closely with other UCD support services to ensure that students receive



from IADT and UCD' book launch are (I-r): Dr Andrew Power, IADT Registrar and Prof Mark Rogers, UCD Registrar and Deputy President.

Pictured at the 'Inclusive Assessment and Feedback. Universal Design Case Studies

a seamless continuum of support from orientation to graduation. Advisers also run innovative collaborative projects with faculty, staff and students such as the Purl Jam craft group, and this year Anatomy Drawing lunchtime sessions and 'Dublin in December', an initiative which also arranged a celebratory campus breakfast on Christmas Day.

Mental Health and Well-being

UCD has invested in additional supports for students including the appointment of a new Head of Student Counselling, additional counselling staff to support point-of-service assessment for students and enhanced technological solutions. In October, to mark World Mental Health Day, UCD Student Health announced the introduction of Silvercloud to UCD. Silvercloud is a safe and secure online space offering dedicated self-help programmes to assist students who are experiencing anxiety and stress.

Student Advisers also collaborated with UCD SU, Chaplaincy, HR and Healthy UCD to organise events to mark Mental Health Week, including Mental Health First Aid workshops, Japanese drumming, meditation sessions and panel discussions on mental health.

Student well-being also extends to accessibility and safety in every aspect of the physical and social environment. Through UCD Estates we provided disability awareness training sessions to our Residential Assistants and completed an Accessible Signage project across nine buildings identified as a priority. This project led to the installation of consistent accessible signs, to show for example step-free accessible routes, floor levels, directions to lifts, key offices and lecture theatres. UCD is committed to a campus accessibility review to surpass building regulations, embracing the gold-standard approaches laid out in the 'University for All' approach, and aims to showcase 10 years of accessibility projects in a 2020 Access Symposium.

Collaborating with UCD Students' Union and the National Women's Council of Ireland, the University Management Team committed to the formation of a UCD Ending Sexual Harassment and Violence in Third Level Education group (ESHTE). During 2018/19, this staff-student collaboration ensured that every new student engages with a sexual consent video. Furthermore, the NWCI EHSTE National Advisory Committee, of which UCD is a founding member, launched an It Stops Now Campaign, with the campaign video filmed in UCD. The UCD Dean of Students as Chair of the UCD ESHTE group, joined the national campaign launch as an expert panel member. The UCD group has commissioned the development of bystander training and anonymous reporting. Led by UCD Student Engagement in conjunction with UCD Equality Diversity and Inclusion, these initiatives will be implemented in the 2019/2020 academic year.

Development through Sports

In October, UCD students from six different programme areas were honoured at a Graduate Sports Scholarship ceremony. This programme supports the academic enhancement of our graduate student athletes. The scholarships were awarded from the UCD College of Science, UCD Schools of Computer Science, Law, Economics, Sports Management, Education, Agriculture and Food Science and the Smurfit School of Business.

UCD Sport, who facilitate over 6,000 student members annually, were honoured at the annual UCD Teaching and Learning Awards for their outstanding contribution to student learning. The team was awarded for establishing a comprehensive training programme for club members, enabling students to develop life skills in areas such as occupational first aid, remote emergency care, Safetalk, social media and public relations training to name just a few. UCD Sport is a small and dedicated team who are deeply committed to supporting students and are worthy recipients of this important award.

Development through Societies

Our societies continue to play an important role in the development of student leaders. This academic term we provided over 16,000 students with a large range of staff-to-student mentoring opportunities on topics such as how to increase student engagement, motivate members, collaborate with stakeholders and give back to the wider community.

Workshops on event management, budgetary administration, sponsorship development, online

communications and strategic marketing were delivered to enhance student engagement and develop operational effectiveness within societies. Transferrable skills such as leadership, entrepreneurialism, negotiation, teamwork, diplomacy and persuasion are visibly present among student members in the everyday running of these societies. As our students' activities grow throughout the year, so do their societies and this contribution was recognised at the UCD Annual Societies Awards ceremony in May.

Widening Participation - Undergraduate Programmes (Certificates, Diplomas and Degrees)

	2014	2015	2016	2017	2018	2019
Socio-economically disadvantaged students (full-time degree only) (1)	1,717	1,746	1,320	1,406	1,120	1,198
Students reporting a Disability (full-time) (2)	1,311	1,349	1,473	1,564	1,940	2,113
Students reporting a Disability (part-time)	23	48	51	59	17	63
Mature students (full-time) (3)	997	967	1,021	1,060	923	810
Mature students (part-time)	777	814	836	796	830	907
Part-time and Flexible Learning (4)	827	1,006	1,064	910	1,094	782
Open Learning						183
Students entering under the HEAR Programme (5)						843
Students with Refugee status (FT&PT) (6)						24
FETAC / HETAC (full-time)	232	262	178	291	345	449
All UCD Widening Participation Students	4,375	4,437	4,755	4,965	4,993	5,492
TOTAL UCD undergraduate* students	16,301	16,310	16,687	17,054	17,169	17,186
% Widening Participation Students	26.8 %	27.2%	28.5%	29.1 %	29.1 %	32.0%

New Entrants to Undergraduate Degrees - Supplementary Admission Routes

	2014	2015	2016	2017	2018	2019
HEAR	255	234	269	210	253	221
DARE	196	153	233	246	264	340
Mature	248	233	193	184	196	162
QQI-FET	69	72	100	99	107	180
Future You						16
Asylum Seeker						11

Notes:

- (1) Students from socio-economic groups D, F & G. The HEA adjusted their methodology for 2015/16 so SEG now includes group J and counts 18-20 year olds only. This data trend adjusts in 2016 to reflect this counting D, F, G and J but only presenting on 18 - 20 year olds.
- (2) Students who report a disability either through registration for supports with Access and Lifelong Learning; admission through DARE; OR indicating a disability on the Equal Access Survey
- (3) Students aged 23 years and over on year of entry to UCD, with no previous undergraduate degree
- (4) Part-time, excluding Open Learning
- (5) Those students entering under the HEAR scheme. Prior to 2019 they had not been separated out in this report
- (6) Students with refugee status either declared at application or stated on completion of the EAS survey
- * Excludes undergraduate occasional students, with the exception of those on open learning courses.

RESEARCH, INNOVATION AND IMPACT



Introduction from Vice-President for Research, Innovation and Impact

It is a pleasure to summarise the achievements from what has been an extremely successful year for research, innovation and impact at UCD.

For the second year in a row, UCD researchers secured a record total in external research grants. This year's total of \leq 151 million represents an increase of \leq 29 million, or 24%, on 2017/18, and is 55% greater than the total achieved in 2016/17. This is an outstanding figure and reflects the quality and commitment of our researchers and research support staff.

A number of large grants in particular contributed to this success. UCD has a significant presence in a number of Science Foundation Ireland (SFI) Research Centres that received second round funding this year, and two Technology Centres hosted by UCD and funded by Enterprise Ireland and IDA Ireland also received funding. All of these centres also receive significant funding from a variety of industrial partners. We also had success in schemes newly introduced in 2018/19, in particular the SFI Centres for Research Training (CRT) and the Disruptive Technologies Innovation Fund (DTIF), supported by the Department of Business, Enterprise and Innovation. In European funding, we saw further success with the European Research Council and the Marie Skłodowska Curie Actions in particular.

UCD also invested significant additional amounts from our own resources in internal research funding schemes this year. 2018/19 was the first year of the UCD ADVANCE scheme, which will invest €10 million in PhD studentships over the next five years, and the UCD EQUIP scheme, which will invest a further €10 million in renewal of research equipment. The third tranche of the Decade of Centenaries internal funding scheme also ran this year. These schemes are very important to the support of researchers within UCD, and signal the commitment of the University to excellent research.

UCD researchers won a number of major awards during the past year. These included: Professor Kathleen

James-Chakraborty, UCD School of Art History and Cultural Policy, the first woman to receive the Royal Irish Academy Gold Medal; Professor David Farrell, UCD School of Politics and International Relations, who received the Brown Democracy Medal for his work on the Irish Citizens' Assembly Project; Professor Catherine Godson, UCD School of Medicine, who received the Women In Science Award from the International Association of Inflammation Societies; and Professor Margaret Kelleher, UCD School of English, Drama and Film, who received the Michael J Durkan Prize from the American Conference for Irish Studies.

Our activities in innovation also continue to expand, and the year has seen considerable progress in the physical expansion of NovaUCD, in our knowledge transfer activities and the introduction of a new 5G/IoT accelerator programme in partnership with Vodafone and Ericsson. Professor Eoin Casey, UCD School of Chemical and Bioprocess Engineering, co-founder of spin-out company OxyMem, was named SFI Entrepreneur of the Year for 2018.

The achievements highlighted in this section are a testament to the skill and dedication of our outstanding faculty, researchers and research support staff. Their continuing commitment to advancing knowledge and delivering impact through their research and innovation is central to the success of UCD.

Professor Orla Feely Vice-President for Research, Innovation and Impact

Research Funding 2018/19

Externally funded research contracts registered during the year amounted to €151 million (see Table 1). Awards from SFI and Enterprise Ireland have been the main contributors to this increase, driven by SFI centre renewals and CRTs, and EI Technology Centres and DTIF awards. Full details of the largest awards are shown in Table 2. Research Publications: details of all research publications for the period of the report are available online at www.ucd.ie/research/publications

There were thirty-four EU-funded awards during the financial period 2018/19. Meanwhile the 'Others' category, which includes Industry partners, has grown by \in 7.4 million, with approx \in 5.8 million coming from Irish business.

Table 1: 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
2009/2010	49.5	6.7	449	1,069
2010/2011	103.3	17.0	510	1,123
2011/2012	75.7	9.5	532	1,263
2012/2013	113.3	17.4	614	1,167
2013/2014	114.1	16.5	672	1,245
2014/2015	106.3	17.2	627	1,603
2015/2016	93.7	13.2	652	1,372
2016/2017	97.5	12.3	661	1,336
2017/2018	122.38	17.3	706	1,411
2018/2019	151.04	20.5	607	1,354
Funding Source 2018/2019			Number of Contracts	Value (€ million)
Science Foundation Ireland (SFI)			72.00	65.16
European Commission (EC)			34.00	13.97
Irish Research Council (IRC)			107.00	7.64
Enterprise Ireland (EI)			97.00	24.63
Department of Agriculture, Food & The Marine			10.00	1.98
Others			286.00	37.67
Total			606	151.04



Three Innovative Training Networks, each granted €4 million in funding under the Marie Skłowdowska-Curie Actions scheme, were announced in May 2019. Pictured at the launch are (I-r): Assoc Prof Trudee Fair, EUROVA, Assoc Prof Siobhan McClean, BactiVax, Prof Orla Feely, Vice-President Research, Innovation and Impact and Dr Fionnuala Murphy, AgRefine.

Table 2: Largest Grants Awarded to UCD 2018/19

Leader	Funding Source	Programme	Title	Total Direct Costs €M
Professor Brian Caulfield and colleagues	Science Foundation Ireland	Research Centres - Renewal	INSIGHT II - Ireland's Big Data and Analytics Research Centre Effective (Phase 2)	12,603,812
Dr Edward McDonnell	Enterprise Ireland	Technology Centre	CeADAR Centre for Applied Data Analytics and Machine Intelligence	9,288,460
Professor Dolores O'Riordan	Enterprise Ireland	Technology Centre	Food for Health Ireland 3 (FHI 3)	5,605,923
Dr Brian Mac Namee with Dr Georgiana Ifrim	Science Foundation Ireland	Centres for Research Training Programme	ML-Labs: Accelerating Ireland's Machine Learning Expertise	5,577,955
Professor Patrick Guiry with Professor Kevin O'Connor, and colleagues	Science Foundation Ireland	EPSRC-SFI Centres for Doctoral Training Partnership	BEACON Partnership with the University of Nottingham (CDT-2AP) Centre for Doctoral Training Atoms-to-Products - an Integrated Approach to Sustainable Chemistry	4,440,280
Associate Professor Isobel Claire Gormley with Professors Nial Friel and Thomas Brendan Murphy	Science Foundation Ireland	Centres for Research Training Programme	Centre for Research Training (CRT) in Foundations of Data Science	4,241,495
Professor Mark Keane and colleagues	Science Foundation Ireland	Research Centres - Full Proposal	VistaMilk SFI Research Centre	3,136,516
Professor Walter Kolch and colleagues	Science Foundation Ireland	Research Infrastructure	Research Infrastructure	2,686,127
Professor Peter Doran	Genomics Medicine Ireland	Research Project	Genomics Clinical Research Support	2,551,397
Professor Walter Kolch with Professor William Gallagher and colleagues	Science Foundation Ireland	Strategic Partnership Programme	Strategic Partnership Programme	2,511,542
Professor Julie Berndsen with Dr Benjamin Cowan	Science Foundation Ireland	Centres for Research Training Programme	SFI Centre for Research Training in Digitally-Enhanced Reality (D-REAL)	2,072,000
Professor Dympna Devine, Dr Deirdre McGillicuddy, Dr Jennifer Symonds, Dr Seaneen Sloan	National Council for Curriculum and Assessment	Tender	Children's School Lives (CSL)	2,064,880
Professor Frederic Dias	HORIZON 2020	ES - ERC Advanced Grant	Breaking of highly energetic waves (HIGHWAVE)	2,059,957

Pictured are the founders of Naiad, Asst Prof Emmanuel G Reynaud, UCD School of Biomolecular and Biomedical Science and Prof Brian Rodriguez, UCD School of Physics, both of whom are fellows of the UCD Conway Institute, winners of the 2018 UCD VentureLaunch Accelerator Programme.

Seed Funding

A total of 274 eligible applications were received for the 2019 Seed Funding Scheme. There were 94 successful applications (34%) resulting in awards of almost €150,000. This year, the scheme focused particularly on Dissemination and Outputs, Equality, Diversity and Inclusion, and Visiting Professor Programmes.

Table 3: UCD Seed Funding Scheme

naïao Enable Research, Save Time,

Save Lives

2019 Seed Funding by Programme	Volume of Applications	Value of Applications \in	Volume of Awards	Value of Awards €
Dissemination and Outputs	216	426,224	85	99,995
Equality, Diversity and Inclusion Strand A	34	323,300	2	10,279
Equality, Diversity and Inclusion Strand B	9	21,723	2	2,721
Visiting Professors – Incoming and Outgoing	15	219,039	5	37,000
Grand Total	274	990,287	94	149,995

2019 Seed Funding by College	Volume of Applications	Value of Applications \in	Volume of Awards	Value of Awards €
College of Arts and Humanities	22	101,707	11	9,175
College of Business	5	15,699	1	1,389
College of Engineering and Architecture	51	152,696	16	26,609
College of Health and Agricultural Sciences	53	218,256	20	41,571
College of Science	81	245,126	25	51,571
College of Social Sciences and Law	62	256,802	21	19,956
Grand Total	274	990,287	94	149,995

Pictured is Dr Crystal Fulton, UCD School of Information and Communication Studies, winner of the Research Impact Case Study Competition in 2018. Her research 'Playing Social Roulette: The impact of gambling on individuals and society in Ireland' resulted in a follow-up investigation funded by the Department of Justice and Equality, both as a driver for legislative change and content for new regulations. Then Tánaiste and Minister for Social Protection Joan Burton launched the initial report findings.



Decade of Centenaries 2019

The third in a series of calls under the Decade of Centenaries scheme was held this year. 23 applications were received requesting funding of €252,000 collectively. Sixteen proposals were successful and €100,000 of funding was awarded.



Table 4: Decade of Centenaries Scheme

Principal Applicant	Title	College	School	Amount Awarded
Dr Jennifer Wellington	Ruptures and reconfigurations: 1919 in Global Context	College of Arts and Humanities	School of History	3,000
Dr Hussein Omar	The Age of the 'Minority': 1913- 1923-1933	College of Arts and Humanities	School of History	7,000
Professor Regina Uí Chollatáin	The Global Irish Revival 1922- 2022: International Conference	College of Arts and Humanities	School of Irish, Celtic Studies and Folklore	7,000
Dr Conor Mulvagh	Social mobility and higher education: UCD Student Census, 1913-23	College of Arts and Humanities	School of History	4,727
Professor Margaret Kelleher	Ulysses 2022: Joyce's Coming Home (Exhibition)	College of Arts and Humanities	School of English, Drama & Film	11,000
Dr Róisín Kennedy	Constructing Identity - Visual Culture in the post 1918 state	College of Arts and Humanities	School of Art History & Cultural Policy	3,741
Professor Eoin Carolan	Constitution-making and constitutional transitions: 1922-2022	College of Social Sciences and Law	School of Law	4,500
Professor Gerardine Meaney	The Cyclops Project: Towards Ulysses 2022	College of Arts and Humanities	School of English, Drama & Film	9,500
Dr Mary McAuliffe	'Gender, Violence and War; Irishwomen and militancy in the War of independence and Civil War'	College of Social Sciences and Law	School of Social Policy, Social Work and Social Justice	4,148
Professor Diarmaid Ferriter	'Irregular News: Anti-Treaty Broadsides, News Sheets and Ephemera 1922-1923 - A Digitisation Project'	College of Arts and Humanities	School of History	1,483
Dr Luca Crispi	Joyce's 'Ulysses': Centenary Reading, Performance and Arts Series	College of Arts and Humanities	School of English, Drama & Film	1,000
Dr Conor Mulvagh	A History of the Irish Revolution in 100 documents. From the collections of UCD Archives	College of Arts and Humanities	School of History	12,400
Assoc Professor Niamh Mary Howlin	Irish Barristers - A Centenary Celebration	College of Social Sciences and Law	School of Law	1,800
Dr Danielle Petherbridge	Intellectual History of Irish Women 1919-2023	College of Social Sciences and Law	School of Philosophy	3,700
Dr Ciaran Crilly	The Civil War Cantata: An Interdisciplinary Response to Commemoration	College of Arts and Humanities	School of Music	24,000
Dr Aoife Whelan	Reporting Revolution: Media, Politics and the State	College of Arts and Humanities	School of Irish, Celtic Studies and Folklore	1,000

UCD ADVANCE PhD Scheme

The inaugural UCD ADVANCE PhD funding scheme delivered €2 million, in thirty awards, during the 2018/19 academic year.

Table 5: UCD ADVANCE PhD Scheme

PhD ADVANCE Core Scheme

Title	Principal Applicant First Name	Principal Applicant Last Name	PA_College	PA School	Co- applicants	Panel Applied to	Amount Awarded €
Dr	Gerald	Barry	College of Health and Agricultural Sciences	School of Veterinary Medicine		Life Sciences	115,500
Dr	Kazim	Buyukboduk	College of Science	School of Mathematics and Statistics		Physical Sciences & Engineering	69,000
Dr	Shane	Donohue	College of Engineering and Architecture	School of Civil Engineering		Physical Sciences & Engineering	103,620
Assoc Prof	Jane	Grogan	College of Arts and Humanities	School of English, Drama & Film		AHSS, B&L	64,000
Dr	Jana	Haase	College of Science	School of Biomolecular & Biomedical Science		Life Sciences	114,650
Dr	Melinda	Halasz	College of Health and Agricultural Sciences	School of Medicine		Life Sciences	115,905
Dr	Donal	Holland	College of Engineering and Architecture	School of Mechanical & Materials Engineering		AHSS, B&L	63,000
Dr	Joanna	Kacprzyk	College of Science	School of Biology & Environmental Science	Dr Paul McCabe	Life Sciences	106,000
Dr	Jennifer	Keating	College of Arts and Humanities	School of History		AHSS, B&L	64,150
Assoc Prof	Emily	Mark-Fitzgerald	College of Arts and Humanities	School of Art History & Cultural Policy		AHSS, B&L	70,500
Prof	Amanda	McCann	College of Health and Agricultural Sciences	School of Medicine	Dr Pamela Kelly	Life Sciences	115,900
Dr	Daniel	McCrum	College of Engineering and Architecture	School of Civil Engineering	Dr Liliana Pasquale	Physical Sciences & Engineering	73,433
Assoc Prof	Susan	McDonnell	College of Engineering and Architecture	School of Chemical & Bioprocess Engineering		Physical Sciences & Engineering	111,600
Dr	Grainne	O'Donoghue	College of Health and Agricultural Sciences	School of Public Health, Physiotherapy and Sports Science	Prof Donal O'Shea	Life Sciences	113,150
Dr	Cliódhna	O'Connor	College of Health and Agricultural Sciences	School of Medicine		AHSS, B&L	71,700
Prof	John	O'Connor	College of Science	School of Biomolecular & Biomedical Science		Life Sciences	79,000
Dr	Síofra	Pierse	College of Arts and Humanities	School of Languages, Cultures and Linguistics		AHSS, B&L	64,000
Dr	John	Quinn	College of Science	School of Physics		Physical Sciences & Engineering	89,500
Dr	Rebecca	Stephenson	College of Arts and Humanities	School of English, Drama & Film		AHSS, B&L	73,990
Prof	Cormac	Taylor	College of Health and Agricultural Sciences	School of Medicine		Life Sciences	119,000
Total Amou	nt Awarded						1,797,598

PhD ADVANCE Supplemental Scheme

Title	Principal Applicant First Name	Principal Applicant Last Name	PA_College	PA_School	Co- applicants	Panel Applied To	Amount Awarded €
Dr	John	Baugh	College of Health and Agricultural Sciences	School of Medicine		Life Sciences	56,000
Dr	Eoin	Brennan	College of Health and Agricultural Sciences	School of Medicine		Life Sciences	25,000
Dr	Deirdre	Coffey	College of Science	School of Physics		Physical Sciences & Engineering	5,000
Dr	Dearbhaile	Dooley	College of Health and Agricultural Sciences	School of Medicine		Life Sciences	40,600
Dr	Rainer	Melzer	College of Science	School of Biology & Environmental Science		Life Sciences	19,000
Assoc Prof	Grace	Morgan	College of Science	School of Chemistry		Physical Sciences & Engineering	38,000
Dr	Conor	Mulvagh	College of Arts and Humanities	School of History		AHSS, B&L	32,895
Assis Prof	Niamh	O'Sullivan	College of Science	School of Biomolecular & Biomedical Science	Dr Paul McCabe	Life Sciences	46,000
Prof	Adrian	Ottewill	College of Science	School of Mathematics and Statistics		Physical Sciences & Engineering	1,662
Assoc Prof	James	Sullivan	College of Science	School of Chemistry		Physical Sciences & Engineering	20,000
Total Amou	nt Awarded						284,157



UCD EQUIP Scheme

This is the inaugural call for the UCD EQUIP funding programme, with further tranches of funding to come annually. This will provide funding for core research

Table 6: UCD EQUIP Programme

equipment to support excellent research and innovation by a broad base of UCD researchers. A fund of \in 2 million for the EQUIP programme was made available in 2018/19.

Lead Applicant	Applicant Team	College	School	Cost (inc. VAT)	Equipment Item
Prof Jez Simpson	Prof. Ulla Knaus, Assoc. Prof. Oliver Blacque, Prof. Eoin Casey, Prof. Sabine Koeller, Prof. Kenneth Dawson, Assoc. Prof. Susan Quinn, Prof. Wim Meijer, Assist. Prof. Niamh O'Sullivan	Science	SBES/Conway	€397,382	Confocal Fluorescence microscope
Assoc. Prof Margaret McGee	Prof. Corman Taylor, Prof. Jeremy Simpson, Prof. Michael Keane, Assoc. Prof. Patricia Maguire, Assoc. Prof. Oliver Blacque, Assist. Prof. Gerald Barry, Assist. Prof. Siobhan McClean, Assist. Prof. Neil Docherty, Assist. Prof. Yan Yan, Assoc. Prof. Amanda McCann, Fiona McGillicuddy	Health & Ag. Science	SBBS/Conway	€317,230	floor standing and table top ultracentrifuge (2 instruments)
Prof Carl Ng & Dr Angela Feechan	Prof. Fiona Doohan, Assoc. Prof. Paul McCabe, Dr. Saoirse Tracy, Dr. Sonia Negrao, Dr. Grace Cott, Dr. Joanna Kacprzyk, Dr. Brian Tobin, Dr. Rainer Melzer	Science/ Health & Ag. Science	SBES/Ag & Fod Science	€219,278	LED Lighting & Compressor upgrade of existing Plant Growth Chambers
Assoc. Prof Aoife Gowen	Prof. Colm O'Donnell, Prof. Kevin McDonnell, Prof. Da Wen Sun, Assoc. Prof. Claire Gormley, Assist. Prof. Amalia Scannell, Assist. Prof. Fionnuala Murphy, Dr. Junli Xu, Assist. Prof. Mert Celikin, Assist. Prof. Ciaran McNally, Dr. Ana Herrero-Langero	Science	Biosystems & Food Engineering	€186,673	Vis-SWIR hyperspectral Imaging Platform
Prof Frank Monahan	Dr. Nigel Brunton, Dr. Marina Rubini, Prof. Kevin O'Connor, Dr. Angela Feechan, Assoc. Prof Eileen Gibney, Dr. Andrew Philips, Dr. Brendan Rooney, Dr. Breige McNulty	Health & Ag. Science	Ag. & Food Science	€162,500	GC Mass Spec
Prof Brendan Kennedy	Research Fellow, David Gomez Matallanas, Assoc. Prof. Tara McMorrow, Assist. Prof. Melinda Halasz, Assoc. Prof. Oliver Blacque, Prof. Catherine Godson, Assist. Prof. Alison Reynolds	SBBS/ Conway	SBBS	€160,820	Repair & upgrade of current zebrafish facility in Conway Institute
Professor Pat Guiry	Prof. Lorraine Brennan, Prof. Declan Gilheany, Assoc. Prof. Grace Morgan, Prof. Stefan Oscarson, Assist. Prof. Marina Rubini, Assoc. Prof. Paul Evans, Assist. Prof. Eoghan McGarrigle, Assist. Prof. Aifric O'Sullivan, Assist. Prof. Breige McNulty, Assist. Prof. Chandralal Hewage	Science	Chemistry	€134,420	Robotic Sample changer for NMR Instrument

Dr Jana Haase	Prof. Therese Kinsella, Prof. David Brayden, Prof. Eamonn Gormley, Assoc. Prof. Albert Smolenski, Lect. Gerard Cagney, Assoc. Prof. Kathy O'Boyle, Assoc. Prof. Margaret McGee, Prof. Wim Meijer, Lect. Nigel Brunton	Science	SBBS/Conway	€121,361	Liquid Scintillation Counter
Prof Paul McLoughlin	Prof. Gerry Wilson, Prof. Catherine Godson, Prof. Lorraine Brennan, Prof. Keith Murphy, Prof. Helen Roche, Lect./Assist. Prof. Derek Costello	Health & Ag. Sciences	School of Medicine	€110,725	Digital Imaging equipment (Li- Cor scanner, CCD camera & detection system
Prof Brendan Loftus	Prof. Catherine Godson, Director, Walter Kolch, Prof. Desmond Tobin, Assist. Prof. Yan Yan, Assoc. Prof. Trudee Fair, Dr. Melinda Halasz, Prof. Donal Brennan, Assoc. Prof. John Crean, Prof. David McHugh, Prof. Jonathan Bond	Health & Ag. Sci/Conway Institute	Medicine & Conway Institute	€99,000	10X single cell genomics system
Prof Michael Gilchrist	Prof. Kenneth Stanton, Prof. Fengzhou Fang, Assist. Prof. Susan Kelleher, Assist. Prof. Aoife Ahearne,	Eng. & Archicture	School of Mechanical & Materials Eng.	€95,000	Nano Physical Vapor Deposition
Prof Eamonn Delahunt	Prof. Brian Caulfield, Prof. Giuseppe De Vito, Assist. Prof. Ulrik McCarthy Persson, Assist. Prof. Denise McGrath, Assist. Prof. Massimiliano Ditroilo, Assist. Prof. Olive Lennon, Assist. Prof. Giacomo Severini, Assist. Prof. Donal Holland, Assoc. Prof. Nuala Brady, Prof. Madeleine Lowry	Health & Ag. Sciences	Public Health, Physiotherapy & Sports Science	€91,511	3D motion hardware, software and measurement accessories
Prof Ulla Knaus	Prof. Paul McLoughlin, Prof. Keith Murphy, Assist. Prof. Fiona McGillicuddy, Prof. Catherine Godson, Assist. Prof. Eoin Brennan, Prof. Donal Buggy, Assist. Prof. Neil Docherty, Prof. Wenxin Wang, Assoc. Prof. John Baugh	Health & Ag. Sciences	Medicine & BMF	€57,000	Cage Washer
Prof Madeline Lowery	Lect/Assist. Prof. Giacomo Severini, Lect/Assist. Prof. Ciara Greene, Lect/Assist. Prof. Olive Lennon, Lect/Assist. Prof. Donal Holland, Assoc. Prof. Simon Kelly, Sr. Researcher Stephen Redmond, Assist. Prof. Catherine Mooney	Engineering & Architecture	Electrical & electronic engineering	€52,128	High Density EMG/EEG amplifier module

UCD Output Based Research Support Scheme (OBRSS)

Research activity is critical to UCD's reputation as a leading global university. We recognise that commitment to excellent research builds UCD's reputation and that many of the day-to-day costs of research activity are not covered by research grants. In response, UCD has developed the Output Based Research Support Scheme (OBRSS) to disburse research support funds to faculty based on their research outputs, as captured through publications and PhD supervision. During the past year, seven hundred and ninety-three faculty were awarded support funds through OBRSS.

Table 6: Output Based Research Support Scheme

College	Volume of Awards	Value of Awards \in
College of Arts and Humanities	85	57,442.00
College of Business	45	32,722.81
College of Engineering and Architecture	90	133,117.69
College of Health and Agricultural Sciences	209	236,880.09
College of Science	186	187,598.69
College of Social Sciences and Law	169	148,320.38
Other	9	11,205.25
Total	793	807,286.91

Publication Metrics

In 2018, there were 3,695 papers listed in Elsevier SciVal for UCD (see Table 7). Although SciVal coverage is incomplete, and does not reflect the totality of UCD's research outputs (which was 6,124 for the year), this is an important metric.

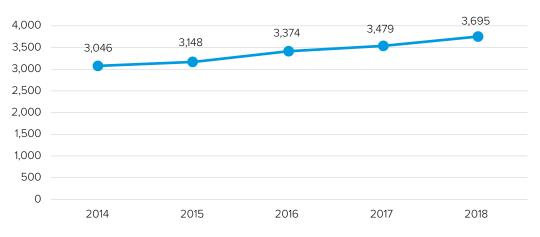


Table 5 Number of publications recorded in SciVal per year

Source: Elsevier Scopus/SciVal (accessed 10 September, 2019)

Field-Weighted Citation Impact

Field-weighted citation impact compares the actual number of citations received by an article with the expected number of citations for articles of the same document type (article, review or conference proceeding paper), publication year and subject field.

A field-weighted citation impact of 1.00 indicates that an institution's publications have been cited exactly as would be expected based on the global average

for similar publications. Using this measure, UCD's publications over the past five-years are 75% more cited than the world average, putting UCD on a similar plane with many other leading international research intensive universities. During the past five years, 20% of UCD's publications were in the top 10% of the most cited worldwide. In addition, 59% of the publications were co-authored with institutions in other countries, emphasising UCD's position as a global university.

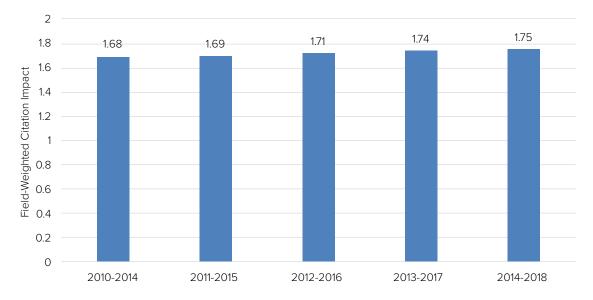


Table 8 Field-Weighted Citation Impact per 5-year period

Source: Elsevier Scopus/SciVal (accessed 10 September, 2019)



Foundation Ireland; Prof Eoin Casey, UCD School of Chemical and Bioprocess Engineering, the 2018 SFI Entrepreneur of the Year; and Dr Orlaigh Quinn, Secretary General, Department Business, Enterprise and Innovation.

New Research Analytics and Impact Team

Impact has come to the fore in the research landscape in recent years, yet the impact of a piece of research is not always easy to measure or articulate. UCD has established a Research Analytics and Impact team to help researchers capture and communicate the effects of their work on society.

The new team runs research impact workshops and has developed an impact canvas to help researchers capture and convey impact in a structured way. The team runs an annual Research Impact Case Study Competition that encourages researchers to develop impact case studies about their work. The competition has built up an impressive and diverse showcase of UCD's research impact, including projects that have shaped policies in Ireland, that are improving the health and education of children and that are tackling important societal issues.

UCD Strategic Research Priority Areas – Key Highlights

In UCD we seek to deliver excellent research in areas in which the University and country can lead globally, working closely with a range of strategic partners. In order to do this we have identified six priority themes:

- 1. Agri-Food
- 2. Culture, Economy and Society
- 3. Energy and Manufacturing
- 4. Environment
- 5. Health
- 6. ICT

Agri-Food

The agri-food sector is at the forefront of our response to some of the most pressing global challenges and is Ireland's largest indigenous industry. UCD is working with the sector to ensure sustainability and global competitiveness, and to develop safe, novel foods and promote human health. Through our expertise in animal science and veterinary medicine, we promote efficient, sustainable, healthy and welfare-friendly livestock production. Our graduates are leaders in the agri-food sector nationally and internationally.

Agri-Food Highlights

UCD's agri-food leaders continued to make their mark globally in academia, industry and policy. Professor Da-Wen Sun, UCD School of Biosystems and Food Engineering was listed among the top 1% of researchers for most cited publications in UCD has established a **Research** Analytics and Impact team to help researchers capture and communicate the effects of their work on society.»

Agricultural Sciences indexed by Clarivate Analytics for the fourth consecutive year. Professor Sun had sixty-eight publications classed as 'Highly Cited Papers' and has published more than 500 peerreviewed journal papers indexed by Web of Science, with a Web of Science h-index of 95, SCOPUS h-index of 101 and Google Scholar h-index of 110 – ranking him Number 1 in Agricultural Sciences in the world.

UCD was proud to announce in May three new Innovative Training Networks (ITN) worth €4 million, funded under the Marie Skłodowska-Curie Actions, two of which have an agri-food focus. Dr Fionnuala Murphy, UCD School of Biosystems and Food Engineering is co-ordinator of the AgRefine ITN, to train PhD researchers in a number of advanced technical subject areas including chemical and process engineering, biological science, lifecycle assessment and economics. Associate Professor Trudee Fair, UCD School of Agriculture and Food Science will co-ordinate EUROVA, which will consolidate European oocyte biology research and train a new cohort of reproductive scientists with a view to driving innovation in assisted reproduction technologies (ART), animal breeding, endangered species preservation, regenerative medicine and reproductive toxicology.

In addition, the €2.1 million ITN PROTECT was launched in May, to train highly-skilled researchers on a range of predictive modelling tools to evaluate the effects of climate change on food safety. Led by Associate Professor Enda Cummins, UCD School of Biosystems and Food Engineering, the programme includes fifteen partners from eleven European countries, comprising eight academic partners, six industry partners and the United Nations FAO. Professor of Equine Science Emmeline Hill, UCD School of Agriculture and Food Science, who is also Chief Science Officer with equine science company Plusvital, revealed a breakthrough in thoroughbred horse gene research. Published in July in the scientific journal *Animal Genetics*, the work identified the role of the 'motivator gene' as a key factor in whether or not a racehorse will race. Such identification of key genes has opened up exciting possibilities for the sector.

UCD is a partner in five of the 27 projects that will receive funding under the first tranche of the State's Disruptive Technologies Innovation Fund. The fund totals €75 million over the next three years, with UCD's projects receiving €18.7 million. UCD School of Agriculture and Food Science's Professor David MacHugh and industry partner IdentiGEN won €1.4 million for their food labelling research using multiplexed next generation sequencing to provide a crypto-anchor for food authentication as a substitute for costly, error-prone labelling and certification systems.

Finally, Professor Lorraine Brennan, UCD School of Agriculture and Food Science won the inaugural Irish Women's Award for Services to Science and Technology, in recognition of her expertise in and dedication to nutrition and health research. Professor Brennan leads a metabolomics research group in UCD and is instrumental in the development of metabolomics for nutritional research.

Culture, Economy and Society

UCD is renowned for research and research impact in the areas of Arts, Humanities, Business, Social Sciences and Law. UCD researchers continue to lead in the scholarship of Ireland and its global environment: interpreting the past, critically interrogating the present and imagining the future. They inform public policy and public debate, and deliver and support landmark cultural contributions.

Culture Economy and Society Highlights

Celebrated author and academic Associate Professor Emilie Pine, UCD School of English, Drama and Film, won the An Post Irish Book Awards 2018 Book of the Year and Newcomer of the Year awards for her bestselling book *Notes to Self* – a vivid and powerful collection of personal essays addressing alcoholism, infertility and abuse. Deepening the impact of her work, she submitted testimony from her research, 'Industrial Memories', to the UNESCO archives. Her work has also been recognised by Minister for Children Katherine Zappone, to whom she is an advisor. UCD College of Social Sciences and Law secured over €10 million in new external research awards in 2018/19. Professor Eoin Carolan, UCD Sutherland School of Law was awarded a prestigious ERC grant of €2 million to investigate how the separation of powers in different constitutional systems is affected by current social and political trends.

In addition, in UCD School of Education, Professor Dympna Devine and her team were awarded over €2.1 million from the National Council for Curriculum and Assessment, for the most wide-ranging study into the primary school system ever funded by the State.

The College of Arts and Humanities saw several prestigious accolades presented to its researchers in the last year. From the UCD School of Philosophy, Professor Dragos Calma received a Friedrich Wilhelm Bessel Research Award for lifetime achievements in research. Having published widely on Proclus, Professor Calma directs an ERC Consolidator Grant project at UCD on Neoplatonism and Abrahamic Traditions. Meanwhile, Professor Maria Baghramian won a €3 million Horizon 2020 grant for the three-year research project 'Policy, Expertise and Trust in Action', on the role of science in policy decision-making and the conditions under which people should trust and rely on expert opinion that shapes public policy.

Professor Kathleen James-Chakraborty, UCD School of Art History and Cultural Policy received the Royal Irish Academy's Gold Medal for her work in Humanities - the first woman ever to receive the award.

Head of UCD School of Politics and International Relations Professor David Farrell received the Brown Democracy Medal for his work on the Irish Citizens' Assembly Project, which has been credited with having a transformative affect on Irish politics, society and culture over the last decade. Dr Jane Suiter received the medal alongside Professor Farrell at Penn State University, the first Irish academics to be presented with the award.

Energy and Manufacturing

At UCD we are working to find solutions to the energy challenges of the 21st century. Our research expertise covers traditional energy sources as well as the integration of renewable energy and the interface between energy and ICT in areas such as Smart Grids and Smart Cities. We analyse the economics and the behavioural science around energy choices, we seek to enable the policy framework to promote efficient and sustainable energy use, and we drive the emergence of new energy enterprises. We partner extensively with energy companies in our research, and many leaders of the sector nationally and internationally are UCD graduates. Advanced manufacturing is another area in which UCD has established significant research capacity. Manufacturing competitiveness has been identified by the National Research Prioritisation Steering Group as a key area of focus, and the UCD College of Engineering and Architecture is aligning its strategy to address challenges in this field.

Energy Highlights

We are currently experiencing a profound energy transition, shifting away from an energy system based on fossil fuels to one based on zero-carbon. Decarbonisation of the energy sector requires urgent action with renewable energy driving a shift in the way we generate, distribute and consume energy. Achieving a timely, managed and just energy transition presents an unprecedented challenge, one in which research and innovation will help in developing the decarbonised, decentralised and digitised energy system of the future.

UCD Energy Institute plays an integral part in this, endorsing a net zero carbon energy system, promoting a modernised integrated energy system while empowering the citizen through education, innovation and digitalisation (see UCD Research Institutes).

Manufacturing Highlights

Following its successful launch in September 2018, I-Form, the SFI Research Centre for Advanced Manufacturing hosted at UCD, is now fully established, conducting cutting-edge research into the application of digital technologies in manufacturing. Headquartered at UCD, the academic consortium includes DCU, TCD, NUIG, IT Sligo, Waterford IT and NUI Maynooth.

The centre has a particular focus on additive manufacturing (3D printing) and is working with industry partners in sectors such as medical devices, pharma and precision engineering – the focus being on both enhancing efficiencies for existing users of the printing technology, as well as evaluating its suitability for new manufacturing processes.

The Centre recently secured additional funding to support an SFI/EPSRC doctoral training centre linked with the Universities of Sheffield and Manchester, which will see an additional 25 PhD students recruited to I-Form over the coming years. In addition, I-Form director Professor Denis Dowling led UCD's participation in the €400+ million European Institute of Innovation and Technology (EIT) Manufacturing consortium. This is focused on advancing education, innovation and business creation in manufacturing across Europe.

Environment

Many of the most significant global challenges relate to our ability to sustain our environment and to use natural resources wisely. UCD researchers deliver practical solutions in the areas of sustainable living, natural resources, climate change, natural hazards and the built environment. Their expertise spans a broad range of disciplines, including the biological and physical sciences as well as economics, behaviour and regulation, and they address the challenges facing Ireland's unique environment along with the major global questions.

Environment Highlights

Professor Kevin O'Connor, UCD School of Biomolecular and Biomedical Science, who is director of the SFI BEACON Bioeconomy Research Centre, was appointed to the EU mission board on Adaptation to Climate Change, Including Societal Transformation. The UCD-led €22.2 million BEACON centre was launched last October as part of a national bioeconomy strategy.

iCRAG, the SFI Research Centre for Applied Geosciences, has continued to deliver world-leading research on the mineral, water and energy resources needed for a sustainable society. Highlights include the holding of the ReSToRE International Summer School on resource sustainability under the patronage of UNESCO, the publication of a white paper on aiding European efforts on global change, and exhibiting at leading geoscience and natural resource conferences throughout Europe and North America.

Finally, Dr Francesco Pilla, UCD School of Architecture, Planning and Environmental Policy is working on several projects to tackle environmental issues in Dublin and in other European cities. The research is currently co-designing and testing interventions with citizens to mitigate against poor air quality and its related health effects, to predict localised flooding and plan for future protection against such events, and to assess the value of green spaces to human health and well-being. The research is already increasing awareness among citizens of the need for greater sustainability, and the interventions are designed for larger-scale impact in Europe.

Pictured is Prof Eoin Carolan, UCD Sutherland School of Law who was awarded a prestigious ERC grant in 2019.



Pictured are UCD undergraduate students with Pepper, the UCD Innovation Academy's Humanoid Android at the launch of UCD Innovation Week at PwC

Health

At UCD, we are looking to the future of healthcare, one where new therapies, technologies and devices emerge from the symbiosis of technology and biology. Our precision medicine approach offers great promise in better targeting therapy and reducing side effects across a range of specialties, including cancer, metabolic and cardiovascular disease and dermatology. OneHealth, a priority area for UCD, focuses on infectious and rare diseases and considers animal as well as human health. Access to the largest academic hospital network in the country, the Ireland East Hospital Group (IEHG), serving a patient population of over 1.1 million, provides unique opportunities for translation and implementation. We are also leaders in health promotion, informing policy and practice, and our Connected Health Programme works with clinicians, industry and patients to change the way healthcare is delivered.

Health Highlights

UCD researchers continue their focus on obesity, one of the most important public health issues facing Ireland today. The subject is being addressed on a number of fronts from diet, exercise and policy reform to bariatric surgery, in addition to the study of obesity-related diseases such as CV disease, stroke and cancer. Principal of UCD College of Health and Agricultural Sciences, Professor Cecily Kelleher contributed to the WHO's Childhood Obesity Surveillance Initiative (COSI) - the largest study of its kind, looking at more than 100,000 6 to 9-year-olds in 22 countries. The study demonstrated that babies given formula milk instead of being breastfed are more likely to become obese. In Ireland, nearly half of mothers (46%) have never breastfed compared with 77% in Europe.

At UCD, **we are looking to the future of healthcare**, one where new therapies, technologies and devices emerge from the symbiosis of technology and biology.["]

Professor Carel Le Roux, UCD School of Medicine and UCD Conway Institute led another study involving a clinical trial with Medfit, physiotherapy and rehab centre, for the treatment of obesity-related complications such as prediabetes, sleep apnoea, hypertension and diabetes. The study explored a combination of diet, exercise and medication to achieve 15% (two to three stone) weight loss in patients.

UCD is leading in Precision Medicine – a patientspecific approach critical for the development of new drugs and treatments tailored to the individual, as opposed to a 'one size fits all' methodology. The University gained major investment boosts in this area in the last year, including €2.7 million funding to Professor Walter Kolch, Director of Systems Biology Ireland, for a national platform for comprehensive molecular analysis.

The University also announced a major collaboration with Genomics Medicine Ireland as a part of a largescale national population research programme, across more than sixty diseases including multiple sclerosis, diabetes, inflammatory bowel disease and Alzheimer's. The collaboration is one of the largest academic and industry collaborations in genomics research globally and has significant potential for new drug development as well as advancing Ireland's skills and expertise in the field.

In line with the goals of UCD's One Health concept – which recognises the continuum between the environment, human and animal health – a transatlantic alliance funded by Zoetis has been established between UCD and the University of California, Davis, with the aim of addressing key challenges such as antimicrobial resistance. A new fund to support strategic collaborations in One Health has also been set up with the University of Edinburgh.

Researchers in UCD's health sciences were also beneficiaries of the State's DTIF. Professor Wenxin Wang, UCD School of Medicine and UCD Charles Institute of Dermatology leads an €8.4 million project with partners Amryt Pharma, Curran Scientific and DEBRA Ireland, researching a disruptive gene therapy platform to replace viruses in the treatment of genetic conditions, such as Epidermolysis Bullosa.

Professor Ronan Cahill, UCD School of Medicine is leading a project consortium with RCSI, IBM Research and Deciphex – awarded €5.7 million – for research that aims to transform colorectal cancer diagnosis and treatment by making decision-support information available when needed for faster and more accurate interventions.

Dr Attracta Lafferty, UCD School of Nursing, Midwifery and Health Systems, and Associate Director at the National Centre for the Protection of Older People (NCPOP), successfully secured an Emerging Investigator Award from the Health Research Board. Securing almost €800,000, Dr Lafferty's project aims to develop a workplace-based programme to promote health and self-care behaviours among working family carers, in collaboration with Family Carers Ireland.

Finally, UCD research dietitian Dr Caoileann Murphy – a postdoctoral researcher at the UCD Conway Institute – received the British Nutrition Foundation's Drummond Early Career Scientist Award last November, an annual scheme that recognises early career nutrition scientists who show great potential to be future leaders in the field.

ICT

ICT research at UCD advances knowledge and delivers highly trained researchers in fields such as data analytics, artificial intelligence (AI), the Internet of Things, smart systems, privacy and security. It also connects these fields with others, addressing applications such as smart agriculture, connected health and digital humanities.

ICT Highlights

According to a recent cybercrime report from Cybersecurity Ventures, the frequency and scale of cybersecurity attacks are increasing every year, and there is an acute shortage of qualified cybersecurity specialists and solutions available to respond to this. It is estimated the cost of this new age crime will reach \$6 trillion globally by 2021.

Aligned with this serious imperative, research in the space is now a key focus for UCD. The University hosted its Cybersecurity Colloquium in May to showcase the breadth of its world class research, with contributions from partners including IBM, EXEDEC, Mastercard and DAC Beachcroft.

It was announced in February that Dr Liliana Pasquale, UCD School of Computer Science and Lero SFI Research Centre will co-lead a team of Irish researchers forming part of a consortium selected for a €15 million H2020 cybersecurity project, CyberSec4Europe. The forty-two-month project will strengthen research and innovation competence and cybersecurity capacities of EU Member States.

In March, UCD hosted the largest Irish quantum computing event, organised in partnership with IBM Research Ireland, UCD Research, and the UCD Institute for Discovery. The UCD-IBM Quantum Technologies Colloquium focused on emerging research opportunities in the space – a strongly interdisciplinary field of study that draws on expertise in Science and Engineering but is expected to be highly disruptive to a range of other disciplines.



ICT research at UCD advances knowledge and delivers highly trained researchers in fields such as data analytics, artificial intelligence (Al), the Internet of Things, smart systems, privacy and security."

Two ICT projects from UCD gained funding from the Disruptive Technologies Innovation Fund. Professor Tahar Kechadi and Dr Brian MacNamee, both UCD School of Computer Science, and Professor Jonathan Dodd, UCD School of Medicine, together with IBM Ireland, Nova Leah, DKIT and Davra Networks, won \notin 2.2 million for their medical imaging project to build a platform offering enabling technologies which can host, manage, process and analyse image and text data, creating an ecosystem of actors in the medical imaging domain.

In addition, Dr Oisin Boydell, UCD School of Computer Science and CeADAR Technology Centre for Applied Artificial Intelligence, with partners Exertis Supply Chain Services and Sonalake, won €1 million for a production blockchain project that aims to transform the technology product supply chain.

UCD researchers have key leadership roles in four new SFI Centres for Research Training (CRT), as part of a €100 million investment to provide training for 700 postgraduate students in Digital, Data and ICT Skills for the Future. Dr Brian McNamee, UCD School of Computer Science leads the CRT for Machine Learning, with Dr Georgiana Ifrim, also UCD School of Computer Science, as co-director along with colleagues from TU Dublin and DCU.

Professor Julie Berndsen, UCD School Computer Science is co-directing the CRT for Digitally Enhanced Reality, along with colleagues from Trinity College Dublin, TU Dublin, DCU and NUIG. Associate Professor Claire Gormley, UCD School of Mathematics and Statistics is co-directing the CRT for Foundations of Data Science, along with counterparts in University of Limerick and Maynooth University, and Professor Denis Shields, UCD School of Medicine is co-directing the CRT for Genomics Data Science, in partnership with NUIG, RCSI, UCC and Trinity College Dublin.

UCD Research Institues

In addition to contributing across the priority research areas as outlined above, UCD Research Institutes delivered a number of significant cross-cutting events across the University, some of which are outlined below.

UCD Conway Institute

UCD Conway Fellow Dr Antoinette Perry and her team are leading the development of a new test which uses urine to detect prostate cancer. Studies have so far shown the test to be 70% more specific for prostate cancer compared to the blood test currently used by doctors. Further validation of the new 'epiCaPture' test could help to more accurately identify men who need invasive tests. The research team's findings were recently published in the American Society of Clinical Oncology journal *JCO Precision Oncology*.

The Irish Cancer Society has funded the nationwide expansion of the Patient Voice in Cancer Research initiative and, at the April 2019 workshop, patients advised the National Cancer Registry of Ireland on the design of a national survey on cancer survivorship. Through events such as Choirs for Cancer and Cancer Stories on World Cancer Day 2019, we continue to build connections between communities, patients and researchers.

Finally, the Debating Ageing public engagement series examined ageing as a complex phenomenon that requires a transdisciplinary frame of analysis. It was coorganised by the UCD Conway Institute, UCD Institute for Discovery, UCD Humanities Institute, UCD Geary Institute for Public Policy, UCD Centre for the History of Medicine and the UCD HRB Ignite Connect Programme.

UCD Institute for Discovery

The UCD Institute for Discovery works collaboratively to build and cultivate interdisciplinary connections across the UCD research community, and industry partners, to enable them to find innovative and creative ways to better address societal challenges.

Over the past year, UCD Discovery has co-hosted and supported several high impact interdisciplinary events such as 'AI for Good', 'Food for Thought' and the Cybersecurity Colloquium, as well as inviting several eminent visiting fellows from leading global institutions through our International Visiting Fellowship Programme – Professor Noel Sharkey, Professor of AI and Robotics and Professor of Public Engagement at the University of Sheffield; Professor AIan Winfield, Professor of Robot Ethics at the University of the West of England; Christopher Painter, former US top cyber diplomat and world renowned cyber expert; and Joanna Goodey, Head of the Freedoms and Justice Department, at the European Agency for Fundamental Rights.

UCD Earth Institute

The UCD Earth Institute has been expanding its membership to encompass and engage the full breadth of environmental expertise at UCD, spanning all six colleges and nineteen of its schools. It is taking a strong role in UCD's response to the challenges presented by the Sustainable Development Goals, leading the organisation of a seminar series addressing each goal in turn with an interdisciplinary panel of internal and external speakers and a workshop to explore research synergies and opportunities.

This series is part of a vibrant programme of events and activities run by the Institute to bring together environmental researchers and engage with key stakeholders and the wider public. These events have facilitated interdisciplinary collaborations that have led to successful funding applications on a range of topics including ecology and management of deer in Ireland, and the search for climate-resilient crops.

Earth Institute strategic priority projects have also established an interface called ECOBROKER to connect environmental practitioners with environmental researchers, and established collaboration to contribute an evidence base for climate-resilient agrienvironmental ecosystems.

UCD Energy Institute

The UCD Energy Institute drives the evolution of research into practice through its three core initiatives: a multidisciplinary fundamental research program; EMPowER, an in-house climate policy modelling initiative; and its Integrated Energy Lab. It also continues to work closely with organisations such as the IDA in attracting foreign investment, and showcasing Ireland as the blueprint for electricity system transformation to achieve decarbonisation at scale.

EMPowER, funded by the Department of Communications, Climate Action and Environment, identifies cost-efficient and achievable measures that are reasonable for Ireland to take in terms of bridging the gap to achieving 2030 emission targets and beyond. Through EMPowER, the Institute is examining the implications of the Climate Action Plan (CAP) published in June 2019 – Ireland's most detailed and most radical climate policy statement to date. Unfortunately, the evidence of past decades is that there can be significant divergence between policy objectives, targets and outcomes. EMPowER delivers quantitative transdisciplinary research that can inform climate policy directly.

In 2019, Electric Power Research Institute (EPRI) formed EPRI Europe, the new European R&D hub for an array of smart grid and integrated energy research. EPRI's strategic relationship with UCD Energy Institute, in particular their joint venture in the UCD Energy Institute's Integrated Energy Lab, was a critical decision factor for EPRI in establishing its European base in Ireland.

The multidisciplinary Energy Systems Integration Partnership Programme (ESIPP) is the flagship programme of the UCD Energy Institute, receiving €11 million in co-funding from SFI, industry partners and philanthropic donations. ESIPP is exceeding targets in diversifying its funding portfolio and has successfully leveraged €7.26 million in European and international funding since its inception in 2015, including the coordination of four multi-million Horizon 2020 awards and an ERC award. In addition to this leveraging of international funding, the ESIPP team have significant national/local/exchequer funding through agencies such as SFI, Enterprise Ireland and SEAI, receiving a total of €8.1 million to date - €4.1 million of which was in the past financial year.

UCD Institute of Food and Health

The Institute successfully bid for phase 3 of the Enterprise Ireland Technology Centre, Food for Health Ireland (FHI), with funding of €14.4 million. Led by Institute Director, Professor Dolores O'Riordan and with CEO, Dr Nessa Noronha, FHI 3 will provide an internationally peer-reviewed scientific programme to deliver state-of-the-art technology platforms to enable Ireland's leading agri-food companies to innovate in key areas of global export demand.

The Institute, in collaboration with the UCD School of Agriculture and Food Science, successfully delivered a Professional Diploma in Food Safety and Quality to a cohort of senior managers of a leading multinational food company. The first graduates of the programme will be conferred in September 2019.

In January 2019, the Institute launched its Public Lecture Series on selected hot-topics in Nutrition and Health – to provide scientifically sound, evidence-based information on issues in nutrition of interest to the public, who are often left confused and cynical about the subject due to misinformation.

UCD Geary Institute

The SFI-funded SPRING (Studying Peer Review in Grants) team has published its first major work, a scoping review of the literature on agent-based modelling in peer review. The team also conducted a day-long event on university-industry collaborations (UIC) at Maynooth University, bringing together academics and industry partners to discuss best practice and learning in UIC.

One of the Institute's flagship projects over the last twelve years, Preparing for Life went back into the

Pictured (I-r)

at the announcement of the 5G/loT accelerator programme are; Tom Flanagan, UCD Director of Enterprise and Commercialisation; Max Gasparroni, Vodafone Ireland's Interim CTO on a holographic call from Germany; John Griffin, Managing Director, Ericsson Ireland and Anne O'Leary, CEO, Vodafone Ireland.



field in 2019 determine if the large programme effects found at age five are still present at age nine. While experimental evaluation of this Irish early intervention programme found it was effective at improving the children's cognitive and socio-emotional skills at the end of the intervention, other studies of early intervention programmes find that the initial gains tend to decline once the intervention ends.

The Behavioural Science team will shortly commence a new Horizon 2020 project entitled 'Mind the Gap: Understanding the drivers of intention-behaviour gaps in the consumption of meat and single-use plastics,' led by Dr Kate Laffan. The team will also lead a workpackage on the major new H2020 programme, 'Policy, Expertise, and Trust in Action (PEriTiA),' led by Professor Maria Baghramian. The group maintains an active seminar and workshop series, and recently hosted the International Association for Research in Economic Psychology (IAREP) conference at Croke Park, Dublin.

The ERC Project, Labour Politics and the EU's New Economic Governance Regime, led by Professor Roland Erne, has so far mapped both 'old' and 'new' EU governance interventions in (a) industrial relations, (b) the provision of healthcare, (c) the provision of water, and (d) the provision of urban public transport in Germany, Italy, Romania and Ireland. The team also started studying trade union and social movement responses in these areas at EU-level.

Finally, the online platform for informing and debating public policy in Ireland, PublicPolicy.ie, has been incorporated within the UCD Geary Institute. It provides independent evidence to inform economic, social and environmental policies and to communicate relevant research findings to policymakers and interested citizens.

UCD Humanities Institute

The UCD Humanities Institute has had another productive year, with a busy schedule of research and training events. Along with a full complement of PhD students and postdoctoral fellows, this year we welcomed Visiting Fellows from Iceland – Dr Gunnþórunn Guðmundsdóttir (University of Iceland) working on the Ireland-Iceland Memory Cultures Network – and the UK, with Dr Hilary Bishop (Liverpool John Moores University) working at the National Folklore Collection.

The Institute's annual Distinguished Guest Lecture, 'The History of Emotions: Promises, Projects and Achievements,' was given in April this year by the esteemed Professor Ute Frevert, Director of the Max Planck Institute for Human Development in Berlin.

The Institute won a Wellcome Trust Small Grant in Humanities and Social Science for 'Framing Ageing: A Clinical, Cultural and Social Dialogue' – a one-year collaborative Medical Humanities project with Trinity College Dublin.

UCD Humanities also continued its various public engagement lecture series with lectures in both the 'Plotting the Future: Scenes and Scenarios of Speculation' series (Mark O'Connell) and the 'Truth to be Told' series (Philip Kitcher; Jan Assmann).

Innovation

UCD is committed to its key role in Ireland's innovation and knowledge exchange ecosystem as an enabler of economic growth and as a contributor to economic, cultural and social development. We support this commitment through our innovative and entrepreneurial students and graduates, the development of partnerships with business, Government agencies and social and cultural enterprises, the commercialisation of research outputs, generating, supporting and scaling new ventures and creating jobs.

An example of this commitment is the University's \in 6.5 million investment to develop and extend the eastern courtyard at NovaUCD which is now nearing completion. This development will result in an over 50% increase in the University's capacity to house start-up companies.

The impact of the University's ongoing commitment to support start-ups to grow and scale globally has also been demonstrated by the results of NovaUCD's 15-year survey which were announced during the year.

These results show that UCD has supported over 360 companies and early-stage ventures through NovaUCD since 2003. The supported companies have raised over €760 million in equity funding and the combined annual turnover of the companies surveyed amounted to over €113 million in 2018 and collectively they employ over 1,040 people directly.

In addition UCD is fully committed to engaging in an increasingly broad range of activities that will allow stakeholders, such as industry, public sector and notfor-profit organisations, to benefit from the wealth of technology, research, innovation and expertise that the University generates.

In this regard one of the key new programmes introduced during the year was a 5G/IoT Accelerator Programme sponsored by Vodafone Ireland and Ericsson. The aim of this programme is to assist entrepreneurs who want to successfully launch 5G/ IoT network-enabled products and services. 5G/ IoT will bring ten times faster data transfer speeds enabling applications such as network delivered virtual, augmented and mixed realities for richer learning



Pictured is Dr Elaine Sullivan, co-founder and CEO, Carrick Therapeutics, winner 2018 EY Emerging Entrepreneur of the Year Award.

and gaming experiences. It will bring shorter delays
in communication enabling drones, autonomous
vehicles and Industry 4.0 robotics communicate faster.
5G will enable more people, devices and sensors
to communicate with each other facilitating smart
campuses, smart arenas and smart city applications.

Finally, during the year the University's updated intellectual property management and conflict of interest policies and procedures were approved and became effective as of 1 January 2019.

Recent/New Initiatives

The NovaUCD Mentor Panel was re-advertised during the year and we have been recruiting interested mentors and business partners to our network through digital campaigns, attendance at key ecosystem events and strategic engagements. The network has grown, and we now have over 40 experienced founders and business leaders across a range of industry domains engaged in our programme.

During the year NovaUCD and the UCD Lochlann Quinn School of Business established a new Enterprise and Innovation internship scholarship programme. This 9-month programme will enable an undergraduate business student to work with two NovaUCD start-ups over the course of the programme.

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UCD is committed to its key role in Ireland's innovation and knowledge exchange ecosystem as an **enabler of economic growth** and as a contributor to economic, cultural and social development." The in-hospital Knowledge Transfer Offices in St Vincent's Hospital and the Mater Hospital were established last year by UCD to develop the commercial potential of the research outputs emerging from both hospitals and to extend the reach of their medical advancements to a greater number of patients worldwide.

A total of 16 clinics and two clinical innovation seminars were held in the hospitals during the year resulting in 30 potential ideas being disclosed by consultants, clinical nurses and clinical trial co-ordinators. Five of these ideas are currently being developed further and two were submitted for the 2019 Enterprise Ireland-Cleveland Clinic Innovation Awards.

A Knowledge Transfer Scout programme was developed to foster and build a community of selected postdoctoral fellows, PhD students and research administrators who are interested in learning more about the commercialisation of technology. They assist UCD's knowledge transfer team in identifying new commercial opportunities within their own Colleges, Schools and Institutes. During the year a number of inventions were submitted by the Scouts.

A new NovaUCD Business Internship programme ran for six weeks over the summer with five US business students who worked for five early-stage UCD ventures. As part of the programme the interns conducted market analysis to understand the scope and size of the relevant target market for the venture; developed marketing collateral and a strategy to enable the ventures successfully pitch their innovations to potential customers in Ireland and internationally.

ConsultUCD

ConsultUCD, the University's managed consultancy service, is actively engaging with industry and business to develop consultancy opportunities. Such opportunities will deliver economic and societal benefits in Ireland and internationally by enabling UCD's knowledge and expertise to be more widely and more easily accessible to external stakeholders. Academics who undertake consultancy are able to use the proceeds to fund their research and commercialisation activities.

ConsultUCD has worked with academics from more than a dozen UCD Schools to support them with their external consultancy. Academic consultants have worked with a variety of organisations including engineers, charitable foundations, car manufacturers, SMEs and regulatory authorities.

During the year the results of a Toyota Ireland study carried out by UCD researchers and commissioned through ConsultUCD, revealed that in typical Irish commuting conditions, Toyota's hybrid powertrain system drives in zero emissions mode (ZEV) for significantly more than half (62%) of the time and over 40% of the distance covered.

The study entitled *Energy Behaviour of Toyota Prius Hybrid Vehicles in Sample Irish Commuting Conditions* was authored by Professor Robert Shorten and Assistant Professor Giovanni Russo, UCD School of Electrical and Electronic Engineering, Associate Professor Francesco Pilla, UCD School of Architecture, Planning and Environmental Policy and Associate Professor David Timoney, UCD School of Mechanical and Materials Engineering.

In addition during the year Associate Professor Tara Cusack, UCD School of Public Health, Physiotherapy and Sports Science, was successful in replying to a tender from CORU to provide competency testing services over a three-year period.

Partnering with Industry

UCD has a strong track record of working with industry and seeks strong and strategic engagement with business, social and cultural enterprises; adding value, expanding networks and exploring new opportunities to deliver impact through partnership.

Our innovation ecosystem includes large-scale industry collaborative programmes such as SFI-funded CSETs, Centres and Strategic Research Clusters, and Enterprise Ireland-funded and industry-led technology centres.

In addition over 250 companies have funded research at UCD in recent years and more than 1,000 companies have also collaborated with UCD on research projects.

Over 50 companies, ranging from early-stage high-tech start-ups to established innovation-led companies, are now located at UCD. These companies, which cover sectors from agriculture and food to life sciences to ICT to physical sciences, engineering and cleantech, are primarily based at NovaUCD or NexusUCD, the Industry Partnership Centre, and have located on campus in order to collaborate more closely with UCD.

Commercialisation of Research Outputs

NovaUCD provides a purpose-built, state-of-the-art incubation facility for knowledge-intensive companies alongside a comprehensive business support programme.

During the year several international delegations, from countries including; Australia, China, Indonesia, India, Kuwait, Romania, Taiwan, Uganda and USA, visited NovaUCD to learn more about UCD's success in commercialisation and entrepreneurial activities. In addition through UCD's knowledge transfer team based at NovaUCD, researchers from UCD and the National College of Art and Design (NCAD) are assisted with the identification and protection of intellectual property (IP) arising from research programmes and extending to the commercialisation of IP through licensing to companies and through the formation of spin-out companies.

During the year researchers reported a total of 78 inventions. In addition 23 priority patent applications were filed by UCD across areas of engineering, information and communication technology, and life sciences. 24 licence agreements were also concluded by UCD with a range of indigenous and international companies.

Six new UCD spin-out companies, AzaCor Therapeutics, Equal1 Labs, Naiad 3D Bioprinting, Output Sports, ProvEye and Reneurx Research and Development were also incorporated.

AzaCor Therapeutics has been established to develop 5-azacitidine (5-AZA) for the treatment of Hypertrophic Obstructive Cardiomyopathy (HOCM). The company founders are; Associate Professor John Baugh, UCD School of Medicine and Dr Chris Watson.

Equal1 Labs is developing a new type of quantum computer based on CMOS (Complementary Metal-Oxide Semiconductor). The company founders are; Dr Dirk Leipold, Mike Asker and Professor R. Bogdan Staszewski, UCD School of Electrical and Electronic Engineering.

Naiad 3D Bioprinting is developing a 3D Bioprinter that controls 'bio-ink' properties to better mimic the structure and function of tissues. The 3D Bioprinter will produce improved and reproducible organotypic microtissues for drug discovery for the biotech and pharmaceutical industry. The company founders are Assistant Professor Emmanuel Reynaud, UCD School of Biomolecular and Biomedical Science and Professor Brian Rodriguez, UCD School of Physics.

Output Sports has been established to commercialise technology used to track and test athlete performance using a single wearable sensor. The company founders are; Professor Brian Caulfield, Julian Eberle, Dr Martin O'Reilly and Dr Darragh Whelan, UCD School of Public Health, Physiotherapy and Sports Science.

ProvEye was established to deliver end-to-end software solutions for advanced and automated image correction procedures that can be directly integrated into customers' digital and precision agriculture solutions. The company founders are; Professor Nick Holden and Dr Jerome O'Connell, UCD School of Biosystems and Food Engineering.

Reneurx Research and Development has been established to develop Nefiracetam for the treatment of Multiple Sclerosis. The company founders are; Professor Keith Murphy, UCD School of Biomolecular and Biomedical Science and Dr Mark Pickering, UCD School of Medicine.

Since 2003, 45 new UCD spin-out companies have been incorporated; over 825 inventions have been disclosed by UCD researchers; over 280 priority patent applications have been filed and more than 200 licensing deals have been concluded with a range of indigenous and international businesses such as, Amdocs, Amryt and Glanbia.

The NovaUCD team also supports researchers in the commercialisation of IP outputs through a series of training programmes including the Innovation Sprint, Commercialisation Bootcamp and VentureLaunch Accelerator Programmes.

UCD Commercialisation Programmes

During the year two one-day MedTech Innovation Sprint programmes were held for staff at the Mater Hospital, one on location at the hospital while the other was held at NovaUCD. The overall aim of the programme is to encourage the development of commercial outputs arising from research taking place at the hospital by engaging with clinicians at an earlier stage in the commercialisation process.

During the year 32 researchers completed three UCD Commercialisation Bootcamps delivered at NovaUCD. Participants on the Bootcamps represented a total of 25 potential commercial projects emerging from research taking place at UCD. The overall aim of UCD Commercialisation Bootcamps is to strengthen the pipeline of commercial opportunities arising from programmes.

> Since 2003, 45 new UCD spin-out companies have been incorporated; **over 825 inventions have been disclosed by UCD researchers;** over 280 priority patent applications have been filed and more than 200 licensing deals have been concluded with a range of indigenous and international businesses such as, Amdocs, Amryt and Glanbia._"

Pictured (I-r) at NovaUCD are: Danila Fedotov, Cork; Jennifer McCarthy, Cork; Michael Kirby, Kerry; Roisin O'Connor, Offaly; and Jack O'Connor, Limerick, overall winners of the 2019 BTYSTE Business Bootcamp.



Entrepreneurship Programmes for Students

2019 BT Young Scientist Business Bootcamp

The aim of the BT Young Scientist Business Bootcamp, delivered annually by BT in partnership with UCD, is to bridge the gap between education and business for students who demonstrate entrepreneurial flair and business acumen.

Now in its tenth year, the innovation and skills camp, held at NovaUCD, involved 30 second-level students from across Ireland who demonstrated an ability to understand how and why a simple idea can be developed into a commercially-viable enterprise.

The participating students were selected from all the secondary school students who competed in the 2019 BT Young Scientist and Technology Exhibition.

A talented group of five teenagers from Cork, Kerry, Limerick and Offaly were declared overall winners of the Bootcamp for their project entitled, 'Helping Hemp Heal - The design of a nano-formulation to increase the absorption of cannabidiol in the gastro-intestinal tract.'

UCD Start-Up Stars Programme

During the year UCD Start-Up Stars, an entrepreneurial support programme, now in its fifth year, for UCD undergraduate and postgraduate students who want to work together to build start-ups, was run by NovaUCD with the support of the UCD Innovation Academy and the UCD Michael Smurfit Graduate Business School. Seven early-stage student projects were selected to participate in an intensive mentoring programme which took place over a four-week period at NovaUCD. The aim of this programme was to assist the students in refining their start-up ideas and included a series of structured workshops from industry experts, interactive workshops, regular pitching sessions and mentoring.

MLN, which has proposed creating a secure and real-time in-house carpooling app for medium-to-large organisations, was the overall winner of the 2019 UCD Start-Up Stars Programme. Other participants on this year's programme included Blue Scooters and members of the UCD Formula Student team. Blue Scooters is looking to launch Ireland's first dockless e-scooter rental service in 2020 and in July the UCD Formula Student team completed the Formula Student competition held at the Silverstone racetrack in the UK.

During the summer further mentoring and support was provided to UCD Start-Up Stars projects who are progressing with their business plans. Topics covered included customer discovery and engagement, funding, risk management strategies in terms of the competitive landscape and legislation.

The sponsors of UCD Start-Up Stars programme are; AIB, Arthur Cox, Goodbody Stockbrokers and Xilinx.

NovaUCD Awards

Naiad Wins UCD 2018 Start-Up of the Year Award

Naiad, an emerging life sciences venture, was declared overall winner of the 2018 UCD VentureLaunch Accelerator Programme. This programme supports the creation and launch of sustainable and profitable new ventures based on intellectual property emerging from UCD research programmes.

Naiad is developing a novel liquid-based 3D bioprinting technology that helps researchers fabricate highlyreproducible 3D tissue models that better mimic the rich complexity of human tissue. In replacing ineffective models currently used, Naiad's technology will help to improve drug toxicity and efficacy trials, thereby reducing the high attrition rates associated with drug discovery.

The founders of Naiad are Assistant Professor Emmanuel G Reynaud, UCD School of Biomolecular and Biomedical Science and Professor Brian Rodriguez, UCD School of Physics, both of whom are fellows of the UCD Conway Institute.

NovaUCD 2018 Innovation Award

The 2018 NovaUCD Innovation Award was presented to Professor Stephen Pennington, UCD School of Medicine, by UCD President, Professor Andrew Deeks, at an event held at NovaUCD.

The Award was presented to him in recognition of his commitment and success in protein biomarker research, undertaken during the last 15 years at UCD, and previously in the UK, and the conversion of this research into diagnostic tests for clinical use which can have a positive impact on the lives of patients worldwide.

Professor Pennington is also the founder of Atturos, a UCD spin-out company, which is developing a portfolio of novel multi-marker blood tests. Atturos' first test, OCProDx, is a prostate cancer test which will help some men avoid unnecessary over-treatment of their cancer.

Fundraising Success

During the year several UCD spin-in companies were successful in raising funding and announcing new jobs including; O.C.E. Technology and THEYA Healthcare.

O.C.E. Technology, which develops software for technical applications and supplies radiationhardened chip-level components targeted primarily at the space and high-reliability sectors, secured a €200,000 investment from Zhuhai Orbita Aerospace Science and Technology. The investment will help fund O.C.E.'s expansion into the US market. THEYA Healthcare, which designs and manufactures healthcare garments, secured €665,000 in funding during the year. The funding, raised from private angel investors and Enterprise Ireland, will facilitate the expansion of the company into the US market and the creation of a number of new sales and marketing jobs to support this strategic expansion.

The company, founded in 2015 by Ciara Donlon, also signed a deal with the Greenhealth Exchange (GX), a US purchasing co-operative, which will see THEYA Healthcare become a preferred supplier to 11 large US Healthcare systems including; Mayo Clinic, Dignity Health and Dartmouth-Hitchcock Medical.

Other Successes

During the year Dr Elaine Sullivan, co-founder and CEO of Carrick Therapeutics, was named winner of the 2018 EY Emerging Entrepreneur of the Year [™] (EOY) Award. Carrick Therapeutics was established in 2016 and has raised \$95 million in funding, with the aim of building Europe's leading oncology company.

Professor Eoin Casey, Head of UCD School of Chemical and Bioprocess Engineering, was named the 2018 Science Foundation Ireland Entrepreneur of the Year. At UCD Professor Casey leads a large research group, his research activities are focused on the exploitation and control of bacterial biofilms in water treatment processes.

In 2007 Professor Casey filed his first patent on a new technology, the Membrane Aerated Biofilm Reactor (MABR), to treat wastewater. Initial small-scale experiments at UCD, and a scaled-up experiment in a large wastewater plant, demonstrated that the MABR technology used up to 75% less energy compared to air bubbles to support bacteria for wastewater treatment.

Following patenting of the MABR technology, Professor Casey co-founded OxyMem, a UCD spin-out company to commercialise the technology, along with Dr Eoin Syron and Wayne Byrne. Following the success of field trials the OxyMem technology has now been deployed, at commercial scale, in 30 major water treatment projects in 14 countries around the world.

ATXA Therapeutics, a pharmaceutical company focused on the discovery and development of new therapeutic drugs in heart and lung diseases, including pulmonary arterial hypertension (PAH), has appointed Dr Ivan Coulter as Chief Executive Officer. Dr Coulter was previously the founder and CEO of Sigmoid Pharma, now Sublimity Therapeutics. ATXA Therapeutics was founded by Professor Therese Kinsella in 2015 as a spin-out from the UCD School of Biomolecular and Biomedical Science.

UCD Innovation Academy

The UCD Innovation Academy has continued to grow its engagement with the student and academic communities on campus and internationally during the year while also enhancing its engagement with the public sector and industry.

This included:

427 undergraduate

students who participated in modules including; Introduction to Creative Thinking, Entrepreneurial Endeavour, Social Entrepreneurship, Design Thinking and Intercultural Competence Building (as part of an Erasmus+ initiative);

236 middle and senior managers from across

industries and sectors who developed their capacity for innovation through the Professional Diploma in Creativity, Innovation and Leadership;

160 graduates

who were reskilled through the Postgraduate Certificate in Innovation, Entrepreneurship and Enterprise in collaboration with HEA Springboard+;

102 secondary school children from the Dublin

area, with 50% of participants coming from DEIS Schools, participated in a Creativity, Innovation and Entrepreneurship summer programme partially funded by the Higher Education Authority and PwC;

175 PhD students who

participated in modules in Creative Thinking, Social Entrepreneurship, Exploring Intellectual Property and Opportunity Generation and Recognition;

Students from UCD College of Science and UCD College of Health and Agricultural Science who participated in an online module in Creative Thinking and Innovation;

73 professional

educators, including 42 UCD faculty, who participated in the Professional Certificate and Diploma for Entrepreneurial Educators.

During the year the UCD Innovation Academy developed its relationship with PwC by providing advice and training support to staff participating in 'Disrupt X', the firm's inaugural innovation initiative. Over 200 UCD undergraduate students, from 26 countries, undertook their semester two electives with the UCD Innovation Academy at PwC. The intensive five-day course culminated in a PwC Challenge Day where multidisciplinary teams tackled challenges relating to Creativity, Talent Development, New Business Models and Corporate Social Responsibility.

UCD Innovation Academy also welcomed Pepper, the first Humanoid Robot-in-Residence in an Irish university to its team as part of its drive to integrate a technology theme across all its modules and programmes.

The UCD Innovation Academy also successfully delivered the third year of InnovationAcademy@ ESB, a bespoke programme designed to develop the innovation capacity of selected staff across the ESB. Two UCD PhD students were also selected to participate in this programme where participants worked collaboratively to prototype new initiatives for the company.

The UCD Innovation Academy enhanced its engagement with the public sector innovation agenda lead by Department of Public Expenditure and Reform as Founding Director Professor Suzi Jarvis was invited to sit on the Action Team focused on Promoting a Culture of Innovation in the Public Service. In addition the UCD Innovation Academy facilitated the Secretary General's Challenge as part of the inaugural Innovation Week at the Department of Education and Skills.

During the year the UCD Innovation Academy continued to work internationally delivering on a collaborative initiative with Vietnam National University, Hanoi to enhance the teaching practice of 100 academic staff as part of the Irish Aid supported Vietnam-Ireland Bilateral Education Exchange Initiative and welcomed a number of staff to Dublin as part of this exchange.

With funding from the HEA Mobility Programme, the UCD Innovation Academy and the Centre for the Initiation of Talent and Industrial Training at the University of Malaya, also successfully delivered the second iteration of an entrepreneurial thinking module facilitated by UCD Innovation Academy for 320 undergraduate students.

GLOBAL ENGAGEMENT



Achievements under the UCD Global Engagement Strategy continued to progress for Ireland's Global University.



UCD Volunteers Overseas' mission is to provide the UCD Community with opportunities to engage in international volunteering and development education activities, which are designed in partnership with local communities and in line with international development frameworks.

Professor Dolores O'Riordan Vice-President for Global Engagement

A key element this year has been the design and launch of a Global Partnerships Framework, which will support UCD to identify and nurture key institutional partnerships around the world.



International student numbers increased further to 8,428, representing almost 29% of all students on UCD's Dublin campuses and bringing diversity to our community with students from 136 different countries. Throughout the year, we held a wide spectrum of events to celebrate our cultural diversity. These included a Thanksgiving dinner for students from the United States and the everpopular celebration of Diwali. Cultural celebrations were hosted in conjunction with

UCD Global Guide Sneha celebrates Diwali students, faculty and staff, one example being the Saudi National Day celebration in September, attended by Saudi Arabian Ambassador, His Excellency Mr Nail Al-Jubeir and the Saudi Arabian Cultural Attaché, Professor Abdullah Al-Dhelaan.

Beyond Dublin, UCD enrols almost 4,000 students in programmes taught overseas, with strong growth witnessed in the Beijing-Dublin International College. In support of UCD's aspirations to increase its focus on joint academic programmes in China, an International Dean for China was appointed in July.

To further its engagement with international networks and consortia, UCD hosted the Worldwide Universities Network conference and annual general meeting in May 2019. Highlights included a special session on Student Mental Health, and a Presidents' Symposium which addressed the topic 'Liberal Education for the 21st Century'.

In support of UCD's Global Engagement Strategy, a series of Global Insights Seminars were held for faculty, staff and students. These seminars presented different perspectives on global engagement and on the myriad international dimensions of higher education.



UCD's commitment to provide mobility opportunities for faculty, staff and students was demonstrated through the establishment of an Outbound Mobility Working Group who have identified key recommendations to support UCD's aspirations within this area. Implementation will commence in 2019/20.

UCD has been a long-standing beneficiary of the Erasmus+ programmes and received €1,003,905 in 2019 to fund 430 students for mobility study, 60 student traineeships and 25 staff for mobility within Europe in 2019/20. In parallel, UCD was awarded €128,810 in Erasmus+ International Credit Mobility funding to support the mobility of 26 students, faculty and staff between Ireland and a range of countries (including China, Georgia and Vietnam) over the next 24 months.

UCDVO's Volunteering and Development education programme was once again a great success - 103 UCD students, staff and alumni volunteered in three countries (Uganda, Tanzania and India) working in the areas of community development, healthcare, education, and infrastructure development.

In line with the UCD vision for Global Engagement, 'We will bring the best of the world to Ireland and the best of Ireland, including its distinct cultures, to the world', UCD Global supported alumni events around the world, California, Beijing, Denmark, Riyadh and Dubai. One of the most memorable events was in New York in March, which coincided with the momentous performance of the Choral Scholars of University College Dublin at Carnegie Hall.

Under the leadership of Dr Douglas Proctor, the team in UCD Global has been actively supporting Schools and Colleges in international student recruitment, student mobility, student support, and building international partnerships. As Ireland's Global University, UCD is active around the world, not least through the five UCD Prof Dolores O'Riordan, Vice-President for Global Engagement with students from University of Johannesburg who attended the UCD Irish Language Summer School, (I-r): Semanga Mabuza, Joyce Maxinwa, Edwin Mzila, Nomthandazo Mngomezulu, Papali Mahooana, S'busile Mdlalose, Aaron Mabaso and Lesego Shibambu.

Global Centres operating in the USA, China, India, Malaysia and Dubai. January 2019 marked the formal launch of the UCD Global Centre in Dubai, which was opened by His Excellency Aidan Cronin, Ambassador of Ireland to the UAE.

To support a greater understanding of UCD's global engagement and increasing levels of activity on all continents, UCD Global convened a Global Forum in May 2019 featuring a series of talks and discussions for UCD faculty and staff on countries and regions of key importance.

The UCD Applied Language Centre (ALC) continued to enhance its provision across the following areas of activity: a 22% increase in students enrolling on the summer pre-sessional pathway course, the creation of a Professional Certificate in Teaching English to Speakers of Other Languages delivered on campus to students from partner Chang'an University, the introduction of Korean and Polish, and liaison with ambassadors and cultural attachés to promote our Global Language Modules. In May 2019 the ALC hosted the leading language testing conference, EALTA, attended by 220 delegates from 34 countries. Staff from the Centre continue to present at a wide range of language pedagogy conferences.

It was a busy start to the year for the UCD Confucius Institute for Ireland (CII) with the move to their awardwinning new building in September. The unveiling ceremony for the new building was performed some months later in February, by the Chinese Vice-Minister



of Education H.E. Mr Tian Xuejun, and attended by the then Chinese Ambassador to Ireland H.E. Dr Yue Xiaoyong, Executive Deputy Director-General of Hanban Professor Ma Jianfei, UCD President Professor Andrew J Deeks, and more than 130 staff members and students from UCD.

The 40th anniversary of the establishment of diplomatic ties between China and Ireland was celebrated in May, by showcasing authentic Chinese food culture. UCD CII organised an authentic Chinese banquet in conjunction with Sichuan Tourism University. Other cultural activities included the inaugural China Ireland International Film Festival. This was held in Dublin in June over six days and showcased 22 Chinese Irish films in local cinemas in Ireland.

The 2nd International Symposium of the European Association for Chinese Teaching (EACT) was successfully hosted by the Irish Institute for Chinese Studies (IICS) and CII in April. More than 200 scholars and educators of Chinese language from 22 countries attended.

The IICS organised a training course for local Chinese teachers in Ireland who are interested in teaching Chinese language and culture from February until May 2019.

This year the Irish language initiatives, promoted by the University's Bord na Gaeilge, were brought under one heading, 'Gaeltacht UCD', UCD's Global Centre for Irish Language and Culture and in June 2019, Gaeltacht UCD joined the UCD Global Engagement portfolio.

Gaeltacht UCD continued to enhance the student experience and share Ireland's rich linguistic and cultural heritage with UCD's global community.

In March 2019, Gaeltacht UCD led the first Irish language and cultural programme for the 120 UCD dual-degree students in Chang'an University, China. Accomplished musicians and singers from 'Teach na Gaeilge UCD', the centre's award-winning Irish Language Student Delegates at the WUN Conference and AGM at UCD in May

Residence Scheme, delivered the cultural component of the program.

For the third year in succession, Gaeltacht UCD organised Tionól Gaeilge UCD, an International Residential Summer School which brought together local, national and international Irish language speakers and learners. Participants from North America, Europe, Asia and Africa attended classes on Irish culture, history and folklore. Gaeltacht UCD worked in partnership with the lead organisations within the *Foras na Gaeilge All-island Partnership Forum*, building on the strong links between UCD's vibrant community and *Saol na Gaeilge*, the wider Irish speaking community in Ireland and beyond.

Thank you to all who contributed to these successes throughout the year and for the continued support in the delivery of the last strands of UCD's global strategy 2016-2020 during the coming year.

Value & Riorda

Dolores O'Riordan Vice-President for Global Engagement

His Excellency Aidan Cronin, Ambassador of Ireland to the UAE and Prof Dolores O' Riordan, Vice-President for Global Engagement formally launch the UCD Global Centre in Dubai.



EQUALITY DIVERSITY AND INCLUSION



MENU Committee: Chiara Zaccheo, Joanna Kozielec, Clár Ní Bhuachalla, Ulyana O'Neill, Oksana Osiniene, Stephen Lucek, Licia Carlesi, Laura Serrano, Dr Arun Kumar, Suad Taimur Inam, and Caroline Mangan.

Advancing equality, diversity and inclusion (EDI) in a university setting requires constant attention to the challenges faced by faculty, staff and students, the organisational policies, practices and cultures and also the unique opportunities which a university has for distinctive thinking and innovative initiatives.

Work on EDI matters during the year has involved extensive reflection, especially in those Schools which have applied for Athena Swan Bronze recognition on the strength of self-assessment reports and gender equality action plans.

Key innovations have included the appointment of College Vice-Principals for EDI who will provide a point of engagement between University policies and committees and Schools. This is an important measure for addressing the challenges of policy implementation. We are taking the opportunity to better connect our policies and practices with our educational and research capacity, for example through the establishment of a new EDI Research and Curriculum sub-group, and through a workshop probing both the opportunities and challenges associated with unconscious bias training.

We have shared our knowledge and experience, for example through the publication of the *Toolkit on Inclusive Higher Education Practice* and by hosting



Professor Colin Scott Vice-President for Equality, Diversity and Inclusion

a major European Universities Association workshop on diversity and inclusion in higher education. Many events and activities were held during the year to engage faculty, staff and students with mainstreaming EDI, including the launch of the Annual Report and new EDI Policy and Strategy documents. We were delighted to get national recognition with the CIPD Award for Diversity and Inclusion policies, recognising, in particular, our Gender Identity and Expression Policy.

I am grateful to the many faculty, staff and students who have been involved in advancing EDI on our campus, and in particular to the EDI Unit, led by Marcellina Fogarty and to the Access and Lifelong Learning team led by Dr Anna Kelly. There remain many challenges and opportunities to take up as we adapt EDI policies and practice to the new University Strategy in the coming year.

EDI Initiatives

The College Vice-Principals for EDI role was established in September 2018 and is responsible for promoting EDI-related policies, actions and cultural change across their College. They play a key part in supporting and mainstreaming EDI at College level and this is further supported through the establishments of School EDI Representatives.

The EDI Research and Curriculum sub-group was established in March 2019 to co-ordinate and collaborate on research and educational activities in the area of EDI across the University, to identify priority areas, and to use the outputs of research and educational programmes to inform activities under the EDI strategic action plan. The sub-group has identified a number of priorities which will be progressed over the 2019/20 academic year.

The Multicultural Employee Network at UCD (MENU) was established by the EDI Multicultural sub-group following feedback from employees. The aim is to make international employees feel welcome, to help integrate them into the UCD Community and exchange ideas with a focus on promoting cultural diversity and awareness. The network currently has over 100 members.

Six UCD Schools and one College (which includes a further six Schools) successfully achieved Athena SWAN bronze awards since November 2018. Each of these Schools/Colleges has established EDI committees to support the implementation of their gender equality action plans. These awards will have a significant impact in terms of mainstreaming gender and the broader EDI agenda across the University through the implementation of local level initiatives. Over twenty UCD Schools are currently engaged with the Athena SWAN process at various stages. The Toolkit for Inclusive Practice in Higher Education: From Vision to Practice (2018) developed by Dr Anna Kelly and Dr Lisa Padden was launched by Dr Eva Egron-Polak, former Secretary General, International Association of Universities in November 2018. It has been disseminated across the higher education sector and was well received at the AHEAD Conference in March 2019.

EDI Events

The EUA Conference was a collaborative EDI/EUA event with a view to having open dialogue and encouraging collaboration on issues related to diversity in higher education. The Seminar brought together over 30 university leaders and managers from 15 countries to discuss their strategies towards equality, diversity and inclusion and to exchange good practice. The seminar featured talks on UCD's University for All initiatives by Dr Anna Kelly, Director of UCD Access and Lifelong Learning, and Professor Mark Rogers, UCD Registrar, and on UCD's award-winning Gender Identity and Expression Policy by Rory Carey, Director of UCD Culture and Engagement and Marcellina Fogarty, UCD Equality, Diversity and Inclusion Manager. Colleagues from the EUA presented on the INVITED project on 'Strategies towards Equity, Diversity and Inclusion at Universities' and on preliminary results from the INVITED survey, with data from more than 160 higher education institutions from 36 European systems.

A conference on Unconscious Bias entitled 'A Critical Assessment of Unconscious Bias: Emergence, Evolution and Effectiveness' was held in March 2019. Through a combination of keynote speeches, panel discussions and workshops, this conference covered the emergence and evolution of Unconscious Bias, the

Licia Carlesi, EDI Senior Executive Assistant, Dr Siobhan McCabe, Dr Meriel McClatchie, Prof Orla Feely, VP for Research, Innovation and Impact, Marcellina Fogarty, EDI Manager, Professor Frank Monahan, Professor Torres Sweeney, and Eimear O'Reilly, EDI Project Officer.





Martin Shanahan, CEO IDA Ireland, Marie O'Connor, Chair of UCD Governing Authority, Professor Andrew Deeks, UCD President, Marcellina Fogarty, EDI Manager, Professor Colin Scott, VP for EDI, and Professor Judith Harford.

effectiveness of awareness raising on the elimination of discrimination and the identification of practical next steps.

A number of coffee mornings, seminars and workshops were held to mark International Women's Day 2019. Inspirational speakers shared their stories about addressing gender and race inequalities, leading change and creating a more inclusive culture for women in higher education, sport and workplaces in Ireland. Speakers at the 'Shifting the Dial' lunchtime event included: Dr Ebun Joseph, Career Consultant, RSCI and co-ordinator of UCD's first Black Studies and Race Perspectives module; Su Carty, World Rugby Council Member, Business Owner, Performance and Well-being in Business and Sport and Former Women's Development Manager; and Professor Orla Feely, Vice-President for Research, Innovation and Impact and Chair of Gender Equality Action Group, UCD.

On 29 November 2018, the University marked its designation as an Age Friendly University and launched 70 years of Lifelong Learning in UCD. This event comprised a series of presentations.

EDI Policy Development

EDI has been involved in a number of initiatives to support parents and carers in UCD. A webpage has been developed to provide information on familyrelated policies and initiatives including a new policy 'Support for Employees taking Family Related Leave'. This policy provides guidance for employees and managers before and during a period of family-related leave and also on a person's return to work.

UCD received a CIPD award in March 2019 under the Diversity and Inclusion category for the development of the UCD Gender and Expression policy and guidelines. This award was made in recognition of the consultative approach taken in developing this policy and the impact it has made within the University, nationally and internationally. The initiative was also cited in a paper on best practice examples from across European Universities published by the CESAER Group.

The University is committed to attracting and retaining diverse employees. A number of steps have been taken to support inclusive recruitment practices including the embedding of diversity statements in advertisements and including EDI mandatory criteria in job descriptions.

On 4 March 2019, UCD launched its new EDI Policy and Strategy, and Action Plan. The policy was reviewed to reflect the enhanced inclusive culture that now exists within the University community. This policy goes beyond legislative requirements and includes the adoption of socio-economic status as a tenth University equality ground.

The strategy sets out **six strategic objectives** and the actions that will be taken to achieve them.

- To support the University in its mission and vision to continue to be an equitable, diverse and inclusive community.
- 2. To enhance the student and employee experience at UCD to attract and support those from all backgrounds to excel at study and work, and to become the university of choice for all including those from under-represented groups.
- **3.** To promote a culture of dignity, respect and well-being for all, and eliminate all forms of discrimination.
- **4.** To develop a framework to capture robust and reliable equality and diversity data for students and employees across the University's 10 grounds in order to monitor progress in areas of underrepresentation.
- **5.** To raise awareness amongst the University community by promoting greater understanding and engagement with EDI issues across the University.
- 6. To collaborate with external bodies on EDI-related matters with a view to becoming the leading third level Institution in Ireland to advance equality, diversity and inclusion.

In addition to the above strategic objectives, the University will continue to manage the development of bespoke equality projects in line with the desired requirements.

Pictured at the EUA Conference are (I-r): Marcellina Fogarty, EDI Manager; Prof Mark Rogers, Registrar and Deputy President; Prof Andrew Deeks, UCD President; Minister Mary Mitchell O'Connor TD; Dr Anna Kelly, Director ALL; and Prof Colin Scott, Vice-President for EDI.





Rory Carey, Director Culture and Engagement, Eimear O'Reilly, EDI Project Officer, Dr Ebun Joseph, RCSI, Su Carthy, IRFU, Marcellina Fogarty EDI Manager, Prof Orla Feely, VP for Research Innovation and Impact, and Prof Colin Scott, VP for EDI.

Challenges and Opportunities

There are a number of challenges associated with embedding EDI, as well as meeting external requirements and legislation, however these also present the University with opportunities for progressing the EDI strategy.

With the establishment of bodies such as the HEA Centre for Gender Excellence and the Athena SWAN application process with its associated reporting and monitoring requirements, EDI-related data collection has become a priority for the University. Whilst data collection poses many challenges, great strides have taken place in this regard such as a review of the Diversity Monitoring tool for applicants and the development of a gender analytics tool for Schools.

The launch of the University Strategy 2020-2024 will create opportunities in relation to the implementation of the EDI Strategy, which will be reviewed to ensure alignment and revised key performance indicators and metrics will be developed as a measure of success.

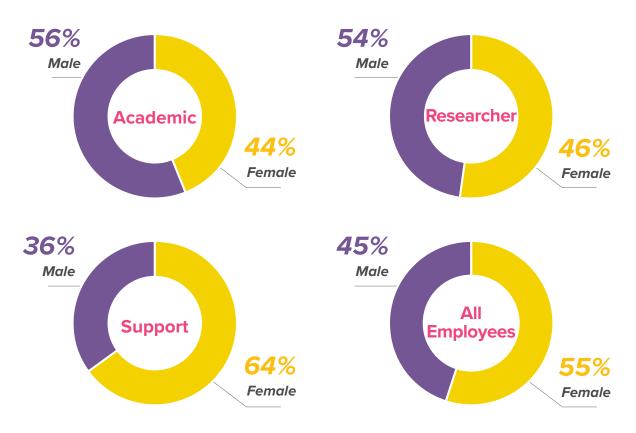
Collaboration with external bodies and organisations provides a platform to share learning and create opportunities. The IUA Vice-President for Equality Network, Athena SWAN National Committee, engagement with the IHREC, CESAER Group and the EUA are all examples of collaboration that the University has and will continue to undertake.

Professor Colin Scott Vice-President for Equality, Diversity and Inclusion

Employees by Gender

STAFF CATEGORY		FEMALE	MALE	NOT STATED	TOTAL
ACADEMIC	Full Professor	40	128		168
	Professor	29	69		99
	Associate Professor	103	148		250
	Lecturer/Assistant Professor Above Bar	253	265		518
	Lecturer/Assistant Professor Below Bar	31	22		52
	Other Academic & Teaching	88	49	1	138
ACADEMIC TOTAL		545	680	1	1226
RESEARCHER	Researcher	218	257	3	478
RESEARCH TOTAL		218	257	3	478
SUPPORT	Academic Administrative / Professional	372	82		455
	Administrative / Professional	413	206	1	620
	Other Support	151	157	1	309
	Support - Full Professor	3	2		5
	Support - Professor	1	1		2
	Research Support	155	127		282
	Technical	139	109		248
SUPPORT TOTAL		1234	684	2	1920
ALL EMPLOYEES		1997	1621	6	3623

Male / Female Employee Ratios



FINANCE AND CAPITAL DEVELOPMENT



David Kelly Bursar Concept Image of the proposed Centre for Creativity

While the University faced significant financial challenges during the year, most notably the uncertainties around Government recurrent funding, it nevertheless managed to achieve a balanced budget outcome and to generate a small surplus of €0.2 million for the financial year ending 30 September 2019 on its HEA core-funded activities.

During the year the University's consolidated income grew to over €500 million, with tuition fees remaining the most significant part of the University's overall income, while at the same time costs were closely monitored and controlled with a view to ensuring longterm financial sustainability. Cash generation in the year remained positive, allowing for the continued planned investment in resources and physical infrastructure.

State Funding of Higher Education

The current educational landscape is not without its challenges and the biggest financial challenge facing the University continues to be underfunding of the sector, with the consequent pressure on sustainability of operations and on infrastructure as student numbers increase. While the recurrent grant funding to the sector was increased in 2017 for the first time since the economic crises in 2008, the bulk of the additional funding was earmarked for designated purposes and the State core grant to UCD for 2019 did not meet the costs of the pay awards in 2019. Nevertheless, UCD managed to continue progress towards meeting its strategic objectives and to remain within budget during that period, albeit at the expense of student: staff ratios, student support services and campus infrastructure.

The University budget for 2019/20 has been prepared on the assumption that the 2019 shortfall in funding is not made up in the 2020 grant allocation but that the additional cost of pay awards in 2020 are fully funded. The shortfall in funding is a significant issue for the University 2019/20 budget and future funding is a significant risk. Adequate funding for the increase in student numbers or the restoration of funding to prior levels are not expected to materialise in 2020. However, the University has a solid framework for ensuring long-term sustainability while managing a significant capital expenditure programme to enhance the student experience by continuing to provide high quality teaching and research buildings.

While a continued lack of timely and multi-annual information in relation to State funding adversely affects the University's ability to formulate annual budgets and multi-annual plans, the overall impact of this uncertainty on planning has diminished over the last few years as UCD's academic and support unit budgets are now prepared as part of an integrated process whereby the school plans, enrolment plans and financial plans are prepared over a five-year time horizon and where non-exchequer income is the driver of growth. Where units do not expect to meet their net direct expenditure targets, they may utilise any accumulated reserves earned in previous years provided that a sustainable five-year plan is developed. UCD has continued to increase its intake of international and graduate students and to enhance commercial activity to mitigate the impact of Exchequer funding reductions and to sustain existing academic and support services.

The University has budgeted prudently for many years to ensure that it can meet its challenges and a medium term financial plan which aims to strengthen the financial position enabling the University to continue to invest in the delivery of its strategy is in place.

The Report of the Expert Group on Future Funding for Higher Education was published in July 2016. Its central recommendation was that Ireland needs to substantially increase the level of investment in higher education to ensure that the system can deliver fully on its role in supporting national economic and social development. The report identifies three potential funding options; i.e. a predominantly state-funded system; increased state funding with continuing student fees; or increased state funding with deferred fee payment through incomecontingent loans.

The Expert Group estimated that the higher education sector needs additional annual funding of €600 million by 2021 and €1 billion by 2030 to deliver higher quality outcomes and provide for increased student demographics. This would enable an improvement in student: staff ratios, better engagement with students, and improved support services for faculty and students. The Group also called for an urgent review of the capital building programme and estimated that capital investment of €5.5 billion was needed over the next 15 years to adequately cater for increased student numbers, capital upgrades, health and safety issues, equipment renewal and ongoing maintenance. It further recommended an additional €100 million per annum to deliver a more effective system of student financial aid.

Following publication of the report, there has been broad acceptance of the need for additional sectoral funding, with much debate about the relative merits of the options proposed, but no decision has yet been made regarding the source of this funding.

The universities have called on the Government and opposition parties to implement the Report of the Expert Group and emphasised that the political system must make the difficult choices needed to improve funding for universities and the manner in which this funding is distributed.

In a submission to the Government, the Irish Universities Association (IUA) said Budget 2019 should be used to urgently address the underlying quality issues arising from a decade of underfunding as well as building capacity to absorb the significant growth in student numbers. The IUA in its pre-Budget submission sought an increase of €130 million in core funding and €104 million in essential capital upgrades in 2019.

UCD managed to continue progress towards meeting its strategic objectives and to remain within budget during 2019. "

Review of Allocation Model for Funding Higher Education Institutions

After years of underinvestment and rising student numbers, the Higher Education Authority (HEA) undertook a review of the model for allocating grant funding to the higher education sector. The review and its recommendations will shape the future direction, performance and impact of higher education.

The HEA remains committed to its intention to review and revise its existing RGAM (Recurrent Grant Allocation Model) funding mechanism to align with the recommendations of the National Strategy for Higher Education to 2030 and to ensure that its funding allocation processes support national strategic objectives for higher education.



Concept image of a lecture theatre in the proposed Centre for Creativity.

The HEA has taken the findings of the Expert Group into account in a review of the allocation model for funding higher education institutions and, following a consultation process, is committed to launching a new funding model. In its submission to the HEA, UCD strongly supported a multi-annual approach to facilitate planning and allow for longer-term certainty, and also recommended that a revised model should include all funds for teaching when applying weightings, to reflect the relative costs of different disciplines and programme levels.

We are optimistic that the revised allocation model will include an adjustment to annual allocations to apply full discipline-based weightings to all teaching income, to UCD's benefit, although implementation is likely to be phased over several years. Nevertheless, adjustments to the allocation model can only be effective if made as part of the required significant increase in funding recommended by the Expert Group.

Increase in Non-State Funding

The University continued to focus on alternative non-exchequer sources of funding during the year to maintain a financially stable and viable position.

This year saw another significant increase in international student recruitment and the work of the Global Engagement Group has led to the establishment of student recruitment centres in different countries, particularly in south-east Asia.

Revenue streams from summer activities on campus continue to grow. In collaboration with the UCD

International Office, Summer at UCD consolidated its position in global educational sectors, this is part due to UCD's strong partnerships with major universities in the USA. In addition, the hosting of a wide range of conferences, events and workshops provided an excellent platform to showcase UCD's world-class academic, residential and sporting facilities.

The UCD Performance Based Funding Model

2018/19 marked the fifth year of the performance-based budgetary model, whereby additional resources are allocated on a formulaic basis between the School and College generating the additional income and the University. The funding model also includes EU undergraduate fee income, reflecting the importance of this core activity and ensuring it is resourced equally alongside graduate and non-EU activity. The distribution of additional income to Schools enables them to exert more control over their finances, but is very limited in comparison to the state funding that has been withdrawn in recent years and is in no way a substitute for the restoration of adequate funding.

Consistent with the UCD Global Engagement Strategy, fee income from international students continues to grow but we are seeing increased competition from other universities for non-EU students. Schools may retain a proportion of net fee income, after allowing for scholarships and commissions, and fee scholarships are used to mitigate hardship and are also used as a marketing tool to recruit non-EU students.

Schools and support units updated their five-year plans in 2019 alongside their strategic plans as part of the annual financial planning cycle. However, uncertainty over both the level and the nature of state funding continues to be a significant problem for units in preparing their financial plans.

The Bursar's Office is assisting individual Colleges and Schools to develop five-year financial plans which broadly align with the strategic objectives of the University and to provide a multi-annual view of each unit's planned activities and resource requirements.

The internal funding model was adjusted this year to consolidate small individual unit pay savings occurring throughout the University when temporary staffing gaps occur - e.g. when replacing staff who leave. The consolidated funding is being used for strategic purposes, as one of the funding sources for the Central Pool Academic Appointments which will help to improve our staff:student ratio.

The need to implement strategy and measures, particularly surplus income-generating and cost-saving initiatives, is a challenge for the whole University and



Santiago Astorga (UCD Estate Services) displays the model of our Student Residential Masterplan to visitors to UCD Festival 2019.

this is being addressed through the ongoing work of the University's Finance, Remuneration and Asset Management Committee.

Planning and Budgeting System

The University continued to develop its Oracle system for planning and budgeting during the year in order to improve the efficiency and quality of its annual budget processes. The Oracle system was extended to integrate student enrolment and fee income planning for the 2019/20 budget and to provide enhanced forecasting and reporting against plans. The budgeting and planning system facilitates regular forecasting and reporting and provides a platform for further future improvements in financial and other planning activities.

Further enhancements have been made to the staff planning module with greater upload functionality. This year also saw further improvements in the level of fee income and fee related expenditure reporting by School and College, which is a critical component part of the five-year forecasting facility. There is also greater emphasis in the management accounts on the reporting of committed and discretionary reserves at School and support unit level and an extensive suite of management reports has been introduced to enable decision-making at School level. Academic and support unit budgets have been prepared as part of an integrated process whereby the School plans, student enrolment plans and financial plans are developed. Budgets are prepared in the context of five-year financial plans and where units do not expect to meet their net direct expenditure targets, they may utilise funds previously generated, provided that a sustainable five-year plan is developed.

Procurement

The last few years have seen a significant transformation in public sector procurement practices. The Office of Government Procurement was established in 2013 with a view to managing all strategic spend for common purchases by public sector bodies, including universities. Reform of public procurement is one of the major projects of key strategic importance in the state's public service reform plan.

While the UCD Procurement Office is actively working with the Office of Government Procurement (OGP) to ensure that procurement activities in UCD are aligned with the objectives of the OGP, the UCD Procurement Office continues to run tenders on behalf of the University and provides support and training to staff across the University.

There was also a wider implementation during the year of the centralised online purchasing system with trained buyers, the aim of which is to enhance the coordination of buyer activity across the University and to maintain a high level of compliance with government procurement policies.

Campus Development

During academic year 2018/19 the University has progressed several exciting campus plans that will further define the growth and development of the University estate in line with the UCD Strategic Campus Development Plan (SCDP) 2016-2021-2026.

These include:

- UCD Future Campus Phase 1
- UCD Sports and Student Amenities Precinct
- UCD Student Residential Masterplan

These masterplans build on the principles outlined in the SCDP and provide a more detailed vision for the three Character Areas on the Belfield Campus: Education, Research and Innovation; Sports and Student Amenities; and Residential.

A further objective of Future Campus Phase 1 is to **significantly improve** the public realm and arrival experience at this key location of the Belfield campus through high-quality urban design, landscaping and placemaking. »

Earlier this year two directors were appointed who will guide the development and operation of the growing University estate. Tadgh Corcoran has been appointed as Director of Estates – Campus Development and PJ Barron as Director of Estates – Campus Operations.

UCD Future Campus Phase 1

This year, renowned international design firm, Steven Holl Architects was appointed to oversee the delivery of Phase 1 of the Future Campus Masterplan. This transformational project will feature three separate but interlinked elements:

- Centre for Creativity
- Centre for Future Learning
- Urban Design and Landscaping

The Centre for Creativity, designed by Steven Holl Architects, will provide modern and purposebuilt facilities for UCD College of Engineering and Architecture in proximity to the existing Engineering and Materials Science Centre. Additionally, the Centre for Creativity will be a landmark building, helping to provide a sense of arrival and welcome at this key entry point to the campus.

A second building, the Centre for Future Learning, designed by RKD Architects, will also be developed as part of Phase 1. The Centre for Future Learning will be a key enabler of growth for the University, focusing on facilitating active learning pedagogies in a centralised and purpose-built teaching and learning building for all disciplines.

A further objective of Future Campus Phase 1 is to significantly improve the public realm and arrival experience at this key location of the Belfield campus through high-quality urban design, landscaping and placemaking.

UCD was delighted that Steven Holl was available to present a keynote lecture at the UCD Festival, outlining his vision for this important area of the Belfield campus, including the Centre for Creativity. The plans were well received by faculty, staff, alumni and neighbours and work continues apace on detailed designs.

UCD was successful in its application to the Higher Education Strategic Infrastructure Fund (HESIF) which is reflective of the benefits the project will provide, including increased capacity for students at a period of increasing demand for third-level places, as well as the delivery of high-quality educational facilities and the enhancement of the student experience.

UCD Sports and Student Amenities Precinct

Dublin-based architecture firm, Heneghan Peng Architects, were selected to develop a masterplan for the Sports and Student Amenities Precinct in conjunction with University stakeholders.

The Sports and Student Amenities masterplan provides a strategic vision for the development of a coherent and integrated precinct. In consultation with the student body, the masterplan proposes several new developments aimed at improving sporting and amenity facilities in the precinct.

The vision includes the potential for several developments subject to funding, including a new multipurpose sports hall, an indoor playing pitch as well as an expanded Student Centre to facilitate an enhanced Astra Hall and additional performance space.

The first development within the new masterplan will be UCD's new International Association of Athletics Federations (IAAF) certified running track. Planning permission has been received with construction due to commence during Trimester 1, 2019/2020.





UCD Residential Masterplan

UCD continues to implement the ambitious Residential Masterplan which was designed by Reddy Architecture + Urbanism. Phase 1 is currently under development, with key structural elements completed in spring 2019. This represents an exciting stage of the development and allows a glimpse of what this integrated residential neighbourhood will add to the campus. Due for completion in summer 2020, Phase 1 will deliver 924 bed spaces as well as a student amenity building which will serve as a village centre for the newly developed residential precinct. This amenity building will feature retail and food offerings as well as a gym and health and well-being centre. A lecture theatre located within this building will be used for University teaching but will also be available outside teaching hours for student events.

In parallel, UCD Estate Services and the design team have been preparing to progress Stage 2 of the Residential Masterplan which, on completion, will deliver an additional 1,254 bed spaces as well as 600 carparking spaces which will replace those displaced by the development. (Top) Concept image of UCD Running Track. (Left) Concept image of Studio Spaces in proposed Centre for Creativity.

Recent and Planned Capital Developments:

The UCD Moore Centre for Business, an extension to the Quinn School of Business, is almost complete and is scheduled to open in September 2019. This will be a significant addition to University facilities and will provide a leading-edge resource, delivering additional teaching space, informal and formal study and social spaces, an Entrepreneurship and Innovation Hub, Media Suite, Skills Quarter Support Area, THINK Lab, as well as a 320-seat lecture theatre.

The University Club was completed and opened this year providing a new dining and hospitality experience on campus. The University Club was developed as an extension to O'Reilly Hall, augmenting existing facilities at a central location on the Belfield Campus.

The University continues to invest in the existing building portfolio. Refurbishment works to the Newman and Tierney buildings have continued over the last year, resulting in a much-improved working and teaching environment. These phased refurbishment projects also have an important sustainability component, as by reusing the existing concrete structures and upgrading the lighting, windows and insulation of these 1960s buildings, energy consumption is significantly reduced and the lifespan of the buildings increased.

UCD has committed to the built heritage of the campus including the preservation and restoration of the period houses. The refurbishment project in Newman





Architect Steven Holl outlines his vision for our Future Campus at UCD Festival 2019

House will be completed in September 2019 and it will be home to the Museum of Literature Ireland (MoLI). MoLI, developed in partnership with the National Library of Ireland and supported by Fáilte Ireland, will be a significant addition to UCD's historic, literary and cultural assets and will be an attraction of international appeal.

The restoration of Ardmore House has commenced, with plans to restore period features, formalise the building's function for reception, meeting and office space and bring the building into compliance with modern fire safety and disability access standards.

The expansion of Merville House, home to NovaUCD is now complete. The East Courtyard development increases capacity by 50% with an additional 23 business units, including office, laboratory and coworking space. In line with the with the preservation and restoration programme, period wings have been retained and renovated.

Hospitality Services, Conferences and Events

The Belfield Campus is becoming increasingly established as a prime location for hosting conferences and events. In the last year, 11 associations chose UCD to host their annual conferences, with Belfield welcoming over 4,000 delegates during the summer months of May - August. All 11 conferences were led by UCD Conference Ambassadors and contributed circa €10 million to the Irish economy. In June the largest conference to date was hosted on the campus, with over 2,500 delegates attending the EURO-K Conference on Operational Research with 80 parallel sessions daily, accommodated campuswide. In May, UCD hosted the 2019 Worldwide Universities Network (WUN) Conference and AGM which was an opportunity to demonstrate our facilities to representatives from universities from across the globe.

The 'Summer at UCD' programme once again welcomed many international students and offered them the opportunity to live, study and enjoy the best of what Dublin and Ireland has to offer.

The University continues to work with Healthy UCD and on-campus food service providers to offer healthy food choices to the UCD Community. Our initiative to remove high-sugar sweetened beverages from campus has resulted in over 3.27 million grams of sugar being removed from campus over the last academic year.

Over the last year, several cafes on campus including Pi restaurant, Bluebird café, Quinn café and Readers café have been refurbished and modernised, improving layouts and food options for students, faculty and staff. As part of our commitment to sustainability, single use plastic cups, straws and cutlery have been removed from campus food cafés and restaurants.

Landscaping and Biodiversity

Featuring mature woodlands, watercourses, lakes and green spaces, UCD's campuses contain a rich array of

UCD is on track to achieve the **33%** improvement in energy efficiency. "

biodiversity. Careful management of these environments ensures that biodiversity is supported and encouraged.

An important aspect of this is in relation to work done under the All-Ireland Pollinator Plan. The University is committed to the principles of the Pollinator Plan and implemented many measures this year including the discontinuation of the use of glyphosate in the management of amenity areas. Reduced mowing regimes, supplemented by newly planted areas and wildflower meadows, provide a valuable food source and habitat for bees and other pollinating insects and complement the sylvan and natural feel of the campus. The boundary woodland walk network has been strengthened with the addition of a new spur around the impressive Centre for Experimental Archaeology in Roebuck and will be further enhanced with the annual broadleaf tree planting programme in the coming season.

Commuting

The UCD Community is increasingly choosing sustainable transport modes to commute to campus. Those choosing sustainable travel modes has increased by 1%, meaning that 78% of students, faculty and staff now travel to campus each day on foot, by bicycle or public transport.

Through active engagement with the community, including through the Smarter Travel Working Group chaired by Professor Mark D'Alton, UCD Estate Services continues to identify and implement initiatives that improve the sustainable commuting facilities within and services to UCD in conjunction with the National Transport Authority (NTA) and Dún Laoghaire Rathdown County Council.

This year, additional covered bike-parking spaces were installed, bike repair stands are now available in several locations in Belfield and Blackrock and a weekly pop-up bike shop is now running every Thursday at the Food Market.

A new bus service, the 155 was launched in March 2019 and runs from Bray to Ikea via UCD. The new 175 service has proved very popular with those travelling from Tallaght, Rathfarnham and neighbouring areas, as well as those connecting to the Luas at Dundrum.



This year, there were over 6,700 respondents to the annual commuting survey which was a 6% increase on the previous year. This survey is invaluable with respect to planning projects to support the UCD Travel Plan 2016-2021-2026 and targets within.

Energy

UCD is on track to achieve the 33% improvement in energy efficiency as required under the government's National Energy Efficiency Action Plan and Climate Action Plan. To date, the University has improved by 32.5% which has been achieved through an ongoing focus on system optimisation, the implementation of energy efficiency projects as well as through focused efforts within the capital development programme.

The University's energy management systems was recertified to ISO50001 standard in 2019 which is recognition of UCD Estate Services' continued focus on continuous process improvement. This is an international management standard which requires key energy uses to be identified, usage monitored and reported and opportunities for energy conservation identified.

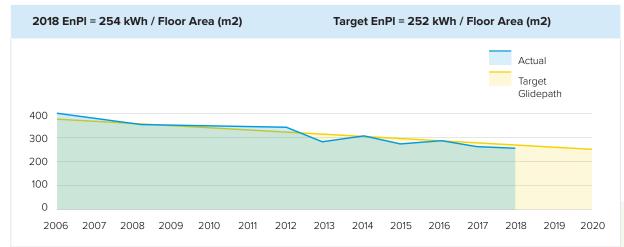
The UCD Estate Services team is continuously considering energy impacts and opportunities arising out of both minor and capital works programmes. During refurbishment projects opportunities to improve façade, fenestration and lighting energy performance are identified and progressed where possible. In new projects, Near Zero Energy Building Standard (NZEB) and Building Energy Rating (BER) 'A' standards are progressed from project conception stage.

This summer, a solar photovoltaic system on the Blackrock Campus was expanded, increasing the quantity of renewable electricity produced onsite. Also in Blackrock, an air-source heat pump system was commissioned which will provide high-efficiency heat to the restaurant building. This will provide learning for the University in this relatively new technology and performance of the system will be closely monitored. Due to the carbon reductions attributable to these projects, the systems received partial funding from the Sustainable Energy Authority of Ireland (SEAI).

G III

David Kelly Bursar

Energy Performance Indicators



3.4% better than 2017
32.5% better than baseline
0.7% improvement required by 2020
5.9% better than target "glidepath"

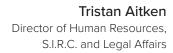
Level 2 Energy Performance Indicators

20kWh Decrease in primary energy use/m² in 2018/2019 compared to 2017/2018

Electricity = 142 kWh / Floor Area (m2) 2.6% better than 2017						
Thermal = 112 kWh / Floor Area (m2)			4.5%			
Transport = 0 kWh / Floor Area (m2)			0.1%			
	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Total Area m2*	314,400	314,400	319,706	319,706	319,706	321,765
Electricity kWh	26,304,456	24,495,179	26,064,323	27,471,804	29,876,628	24,670,214
Gas kWh	70,970,958	66,771,867	61,444,804	54,158,751	49,284,855	55,847,866
Total Primary Energy kWh**	135,385,463	125,207,367	123,966,415	118,639,005	115,460,428	109,858,630
Primary Energy (kWh) per m2	431	398	388	371	361	341

HUMAN RESOURCES, S.I.R.C. AND LEGAL AFFAIRS

Participants in the 2019 Aurora Leadership Programme for Women.



2018/19 saw ongoing delivery of key initiatives in the UCD HR Strategy 2016-2020 – *Growing through people*. With the diligence and exceptional hard work of my team, major people-related projects such as Performance for Growth (P4G), Job Sizing Framework, Additional Academic Appointments Programme, a significant employee engagement programme and both University and School recognition in the Athena Swan Gender Equality Awards, have been delivered through extensive collaboration across the University.

Fittingly, UCD became the first organisation in Ireland to win two awards in the same year at the national CIPD (Chartered Institute of Personnel and Development) awards. The Inclusion and Diversity award recognised UCD's leadership position in creating an inclusive culture for the University community irrespective of gender identity. This award is a credit to the many members of UCD's community who contribute to this important agenda. The HR and L&D Team of the Year award acknowledged UCD HR's transformational



At the signing of an MOU with Special Olympics Ireland are SOI basketball athletes who put on an exhibition game, pictured with Prof Joe Carthy, Chair Employee Engagement Network and Matt English, CEO SOI.

strategy, the ongoing delivery of this strategy to support the University's overall objectives, and the restructuring the unit underwent to ensure it was fit for purpose to deliver a large-scale change programme. The judges found this was an outstanding example of a team working together to deliver HR transformation.

Also, during the year, we completed our quality review process. The task of developing the Self-Assessment Report was a valuable reflective exercise, which enabled our team to review its progress, consult with our community of stakeholders, highlight and confirm our strengths and opportunities, and evaluate our challenges. The Review Group site visit was a positive and constructive experience. The recommendations made for enhancement of our operations will be addressed during our Quality Improvement Planning process (QIP). We are aligning our QIP to our strategic work programme in supporting the University's new Strategy 2020-2024.

During the year I was delighted to welcome the SIRC (Safety, Insurance, Risk and Compliance) and UCD Legal offices into my portfolio.

Transforming Service and Partnership

Examples of initiatives in this area include implementation of Core International, the software application used by HR and Finance to support resourcing, pensions, payroll and expenses and feeds into all online form developments. This investment in technology positions our team to deliver on the University's digitalisation agenda, enhancing manager and employee self-service.

Phase one of the Additional Academic Appointments Programme has been a success with a total of 93 offers and 77 accepts to date across the three hiring modes (Ad Astra - 71 accepts; Reactive Mode - six accepts; Strategic Mode - still at advertising stage). A review of the programme has been conducted and phase two will commence in October 2019.

In December 2018 the Public Service Superannuation (Age of Retirement) Act 2018 was signed into law, providing for an increase in the compulsory retirement age from 65 to 70 for pre-2004 public servants, requiring system changes and additional support for employees.

Enabling a Performance Culture

The Performance for Growth (P4G) framework was successfully launched ensuring our employees have the benefit of a productive discussion on their performance, objectives and development. There was a 90% completion rate by August, representing a significant achievement for all concerned. Feedback has been very positive, with emphasis on the opportunity that P4G provides for recognition, feedback and career development support.

In July 2019, UCD was the first Irish university to secure approval from Government for the implementation of an approach which allows, under certain conditions, for roles to be upgraded. This enables the recognition of individual staff members, where roles have grown in scope and additional responsibilities have been successfully undertaken.

The Job Families Framework implementation was developed further during the year with the incorporation of the new format of competency descriptions for professional and administrative roles.

Throughout 2018/19, the HR Partner Team has been heavily engaged in organisation design, restructuring and change management activities; this activity has accelerated significantly since the launch of the HR Strategy.

Developing Our Talent

Continuing our emphasis on talent development, the suite of development offerings was substantially reviewed to align more closely with competencies developed through the Job Family Framework. These offerings also recognise the requirements for faculty and technical staff development. We have continued to build leadership capability through our Leadership and People Manager Programmes, and the Aurora Leadership Programme for Women.

Building on the success of the 2018/19 pilot, the Assistant Professor Development Programme was extended to cover newly appointed faculty and the Ad Astra Fellow cohort. This targeted programme includes mentoring, formal development activities and networking events and aims to support their growth and success in UCD.

The HR Partner Team focused on coaching provision for leadership teams and people managers, supporting the talent agenda, aligned to local strategy and in collaboration with colleagues supported the diagnosis, design and delivery of organisational development interventions.

Becoming an Employer and University of Choice

Building on the 2016 Culture and Engagement employee survey, the 2018 survey was launched in September with results feeding in to the College and School strategic planning process. Significantly, the survey indicated improvements for the categories of Recognition & Reward and Communications, two areas that the Culture and Engagement unit in collaboration with the Employee Engagement Network had developed initiatives in. Projects included the introduction of Long Service Awards for 10, 25 and 40 years' service, the inaugural Values in Action Awards which recognised six individuals/teams nominated by colleagues for their efforts to bring the UCD values to life. In addition, the network sponsored UCD's new Volunteering policy which supports employees to volunteer locally and overseas. As part of this initiative

UCD Community Choir perform at Engage Day 2019 held to highlight the range of development opportunities, supports and benefits available to employees.

UCD employees presenting €24,000 raised through their UCD Oskars show to UCD Volunteers Overseas, UCD Champions Fund and Special Olympics Ireland.



The UCD HR Team receiving their CIPD Award for HR and L&D Team of the Year at the awards ceremony held in February 2019.

> two internal charities of choice, UCD Champions Scholarship Fund and UCD Volunteers Overseas and one external charity, Special Olympics Ireland were chosen by employees to build partnerships with. UCD's second employee Engage Day was also held; designed to highlight the range of development opportunities, supports and benefits available to all our employees.

> The sterling work of the Equality, Diversity and Inclusion (EDI) team, based within the Culture and Engagement unit, is interwoven with the other areas of HR and UCD in supporting employees and students and is reported elsewhere in this Report.

A significant amount of effort has gone into consultation around revising UCD's dignity and respect policy. This work led by the Employee Relations and EDI teams aims to promote a positive culture of dignity and respect that impacts both employees and students.

UCD Safety, Insurance, Risk and Compliance (SIRC) Office

As University activities both at home and abroad expand, the SIRC Office continues to ensure the ongoing provision of a robust insurance programme for the University during a period of extreme market volatility and claims uncertainty. In addition the Office provides colleagues with expert advice across a wide range of compliance and safety issues, with new challenges in the areas of radiation safety, export control licencing and nanoparticle safety emerging. The quality of the safety training provided by the SIRC Office was recognised when the proceedings of a workshop, run in conjunction with a faculty colleague from UCD School of Veterinary Medicine, were published in the peer-reviewed *Journal of Nanotoxicology*. As University activities both at home and abroad expand, the SIRC Office continues to ensure the ongoing provision of a robust insurance programme for the University during a period of extreme market volatility and claims uncertainty."

UCD Legal Office

CIPD Ireland

The UCD Legal Office is dealing with a growing number of increasingly complex matters across a wide spectrum of work. Over the year this included advising on grantrelated cases with IP elements, general agreements, property, policy review, international development, HR and student-related matters, as well as advising and participating in numerous working groups and committees. In addition, the Freedom of Information (FOI) Unit has dealt with a record number of FOI and Data Access Requests. The Office of the Data Protection Officer (DPO) now sits alongside the UCD Legal Office and is leading the implementation of GDPR across the University. The aim of the Office is to be proactive and to provide clear, objective and practical legal advice and this is reflected in the very positive feedback which the Office receives from across the University community.

Tristan Aitken Director of Human Resources, S.I.R.C. and Legal Affairs

COLLEGE OF ARTS AND HUMANITIES



Professor Sarah Prescott College Principal and Dean of Arts and Humanities

In September the College was delighted to welcome the first students onto its four-year BA Humanities degree.

The College's revised portfolio of programmes has enabled us to diversify the subjects we offer and to introduce new ways to study, with the added benefit of internships, extended research projects and an increased focus on employability skills and the student experience. To support these developments the College office team moved into newly refurbished space on the ground floor of the Newman Building, bringing them into one dedicated and welcoming centre. UCD School of Languages, Cultures and Linguistics and UCD School of Irish, Celtic Studies and Folklore have also benefited from extensive refurbishment that has enhanced the working environment for students, faculty and staff.

In 2018 the College saw its first undergraduate students in English with Creative Writing start their degrees, coinciding with the appointment of acclaimed author Anne Enright as Ireland's first Professor of Fiction. Building further on our literary reputation, the poet Julie Morrissy joined us as the first John Pollard Newman Fellow in Creativity. We also welcomed the influential writer and broadcaster Sinéad Gleeson as Resident Arts Council Writing Fellow. In a further development, the College was pleased to receive five funded PhD studentships under the UCD Advance PhD scheme across the Schools of English, Drama & Film, History, Languages, Cultures & Linguistics, and Art History & Cultural Policy.

There was a palpable sense of achievement at the Teaching and Learning Awards reception held in the College in December, hosted by the College Principal and Associate Professor Naomi McAreavey, Vice-Principal for Teaching and Learning. Congratulations to the awardees for their commitment to excellence and their dedication: Dr Martin Brady and Dr Aude Doody, UCD School of Classics; Dr Catríona Clutterbuck, Dr Deirdre Flynn, Dr Cormac O'Brien and Associate Professor Nerys Williams, UCD School of English, Drama and Film; Dr Mary Farrelly and Dr Sabine Krobb, UCD School of Languages, Cultures and Linguistics; Professor Tadhg Ó hAnnracháin, UCD School of History; and Dr Zeljka Doljanin and the team at the UCD Writing Centre. College Principal and Dean of Arts and Humanities **Professor Sarah Prescott**

Associate Dean for Arts and Humanities Associate Professor Fionnuala Dillane

BA Arts Programme Co-ordinator: Associate Professor Dr Gillian Pye

BA Humanities Programme Coordinator: Associate Professor Paul Rouse

Vice-Principal for Global Engagement: **Dr Aoife Whelan**

Vice-Principal for Graduate

Studies: Associate Professor Elva Johnston

Vice-Principal for Teaching and Learning: **Dr Naomi McAreavey**

Vice-Principal for Research, Innovation and Impact:

Professor William Mulligan

UCD School of Art History and Cultural Policy Head of School **Associate Professor Nicola Figgis**

UCD School of Classics Head of School

Dr Alexander Thein

UCD School of English, Drama and Film Head of School **Professor Danielle Clarke**

UCD School of History Head of School

Professor Robert Gerwarth

UCD School of Irish, Celtic Studies and Folklore Head of School **Professor Regina Uí Chollatáin**

UCD School of Languages, Cultures and Linguistics Head of School **Professor Bettina Migge**

UCD School of Music Head of School **Dr Ciaran Crilly**



Prof Frank McGuinness being presented with the Ulysses medal by Prof Mark Rogers, UCD Registrar and Deputy President.

Throughout the year, faculty accepted a range of prestigious appointments as well as external and internal awards in recognition of research excellence. Professor Kathleen James Chakraborty, UCD School of Art History and Cultural Policy received the Royal Irish Academy Gold Medal. Professor Frank McGuinness, UCD School of English, Drama and Film, received the UCD Ulysses medal and Professor Margaret Kelleher was awarded the Michael J Durkan Prize by the American Conference for Irish Studies for The Maamtrasna Murders. Professor John McCafferty, UCD School of History was appointed Chair of the Irish Manuscripts Commission.

Faculty also had outstanding public success in the publishing world this year, Associate Professor Emilie Pine won both 'Newcomer of the Year' and 'Book of the Year' at the Irish Book Awards for her best-selling collection of essays Notes to Self. In addition, UCD School of History was shortlisted in two categories: Professor Diarmaid Ferriter for On the Edge in the 'Non-Fiction Book of the Year' category; and Associate Professor Paul Rouse in the 'Sports Book of the Year' category for his study The Hurlers. The Living Inside exhibition, curated and researched by Associate Professor Catherine Cox, UCD School of History, opened this year at Kilmainham Gaol to explore the history of Irish prison reform. On

a similar topic concerning the Irish prison service, UCD's Centre for the History of Medicine in Ireland, in association with Brokentalkers Theatre Company, staged *The Examination* in the Project Arts Centre and The Axis and later at the Edinburgh Fringe Festival. The production went on to win best production and other accolades at the Dublin Fringe Festival.

Fintan O'Toole, one of Ireland's leading authors and journalists, was honoured as the Arts and Humanities UCD Alumni Award Winner for 2018. Moya Doherty, RTÉ Chair and Riverdance co-founder, was awarded an Honorary Doctorate in Literature, in recognition of her leadership in the creative arts and her work as a cultural ambassador for Ireland.

UCD School of Irish, Celtic Studies and Folklore welcomed President Michael D Higgins for the inaugural 'Léacht de hÍde' series, a joint initiative between UCD and the NUI. The President delivered an inspiring lecture appropriately titled The Legacy of Douglas Hyde and enjoyed chatting with a wide range of students, alumni, faculty and staff at the reception afterwards. In November, the College hosted its second Annual Lecture delivered by the eminent historian Professor Linda Colley, Princeton University. Professor Colley delivered a lecture on the topical subject of

constitutions, *Inscribing the Modern World: Constitutions Across Histories and Literatures.* In conjunction with the Annual Lecture, UCD School of History was delighted also to welcome Sir David Cannadine, President of the British Academy to speak on the future of arts and humanities in a post-Brexit environment. In March, UCD Clinton Institute of American Studies addressed another pressing theme when Professor Brian Klass, University College London and the Washington Post, and Professor Scott Lucas, University of Birmingham and EA World View, delivered a lecture at the RIA which explored the question *Is America Doomed*?

The College celebrated St Patrick's Day in New York this year when the Choral Scholars of University College Dublin, led by Artistic Director Dr Desmond Earley, delivered an outstanding performance at Carnegie Hall to mark their twentieth anniversary and the release of their new album *Perpetual Twilight*. In April, Dr Ciarán Crilly, Head of UCD School of Music, led the UCD Symphony Orchestra and the UCD Philharmonic Choir in a packed performance of *A Russian Festival* at the National Concert Hall, Dublin.

Throughout the year, the College's Schools and Research Institutes organised a vibrant and diverse range of lectures, workshops, and seminar series. The College inaugurated the 'Conversations Across the Sea' seminar series in partnership with the University of Nottingham. The seminars, which took place in both Dublin and Nottingham, represent the first step in a broader faculty-to-faculty collaboration under the Universitas 21 international network, the first of its kind. Partnerships were also forged between UCD School



Author Anne Enright joins UCD School of English, Drama and Film as Ireland's firstever Professor of Fiction.

Throughout the year, the College's schools and research institutes organised a **vibrant and diverse range of lectures, workshops, and seminar series**. "



of Art History and Cultural Policy, NCAD, the National Gallery of Ireland, and the Goethe Institute to co-host *Bauhaus Effects*, a three-day international conference for the centenary of the Bauhaus School. UCD School of English, Drama and Film hosted the first annual conference of The Association of Writing Programmes Ireland (AWPI), an all-island community of creative writing practice for third-level creative writing programmes founded by the School's Dr Paul Perry, and welcomed Sebastian Barry, Laureate for Irish Fiction, for its keynote lecture.

Katherine Zappone TD, Minister for Children and Youth Affairs, launched Associate Professor Emilie Pine's *Survivors' Stories*, a collection of recorded stories from survivors of residential institutions for women and children in Ireland in conjunction with the National Folklore Collection. This year's Craig Dobbin Chair of Canadian Studies, Professor Gregory Betts, organised an international conference on *Text/Sound/Performance* that celebrated avant-garde culture from around the world through an interdisciplinary mix of literature, art and music. Professor Andrew Wallace-Hadrill, University of Cambridge delivered the well-attended annual lecture for the UCD Classical Society at which he spoke on *The Secret of Power under the Emperor Augustus*.

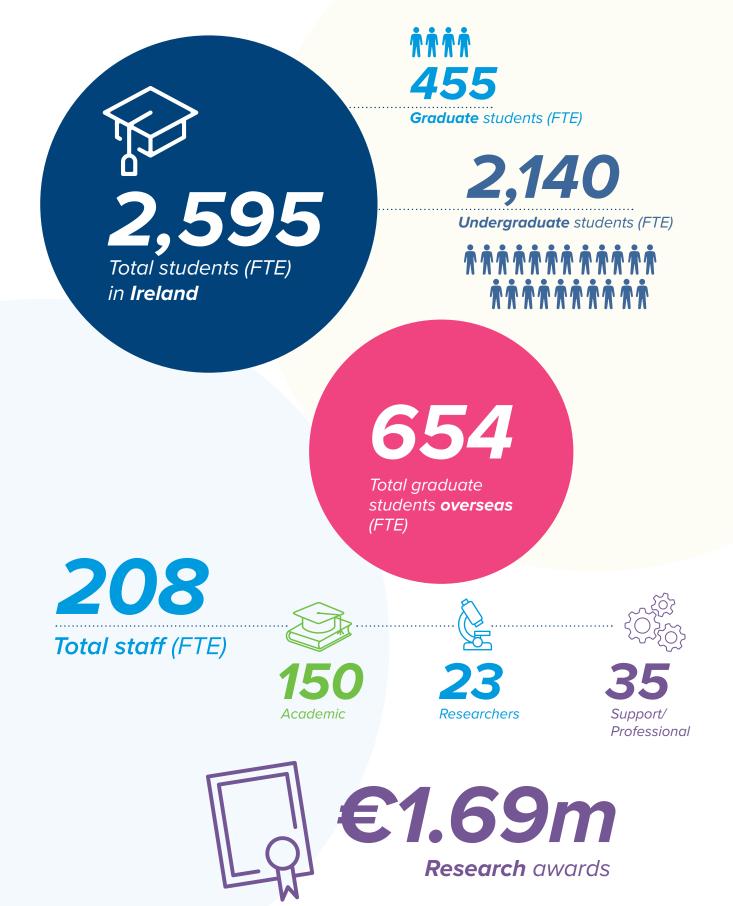
Sunhhert

Professor Sarah Prescott College Principal and Dean of Arts and Humanities



Humanities Award winner Fintan O'Toole at Alumni Awards Gala Dinner 2018.

COLLEGE OF ARTS AND HUMANITIES IN NUMBERS



COLLEGE OF BUSINESS



Professor Anthony Brabazon College Principal and Dean of Business

As Ireland's leader in business education, UCD College of Business continues to deliver transformative learning experiences through innovative programmes and partnerships that empower and prepare tomorrow's business leaders to have a positive impact on society.

Research, Innovation and Impact

The College continues to invest in our research capabilities and we welcomed several new faculty to our community in line with our focus on the recruitment of committed educators with international experience and strong teaching and research capabilities.

Our focus on research impact continues to evolve with the College's first entrant in the UCD Case Study Competition, with Dr Darren Baker's highly impactful work on careers of women in the finance and accounting profession.

There were also notable funding successes during the year with Professors Gerardine Doyle and Andreas Hoepner both receiving multiple funding awards for their work on connected health and environmental finance respectively. Professor John Cotter and Associate Professor Thomas Conlon were awarded Science Foundation Ireland funding to support their research activity in the Fintech domain, while Assistant Professor Paula Carroll received funding awards for her work on energy systems.

The British Accounting and Finance Association named Professor Niamh Brennan as the 25th recipient of its annual Distinguished Academic Award. Professor Brennan is the first Irish recipient in the history of the award.

Dr David Lynch, along with Professor Michael O'Neill, Dr David Fagan, Dr Mike Fenton of the UCD Natural Computing Research and Applications Group, with their collaborators from Nokia Bell Labs (Dr Holger Claussen and Dr Stepan Kucera), won the prestigious Humies Gold Award at the ACM Genetic and Evolutionary Computation Conference for achieving Human Competitive Artificial Intelligence.

Education and Student Experience

We have come closer to realising the completion of the UCD Moore Centre for Business, the new wing of College Principal/ Dean of Business

Professor Anthony Brabazon

Associate Dean and Director of UCD Smurfit School

Professor Gerardine Doyle

Associate Dean and Director of UCD Quinn School

Associate Professor Maeve Houlihan

Associate Dean International **Professor Brian Fynes**

Director of UCD Smurfit

Executive Development Helen Brophy

Vice-Principal of Research, Innovation and Impact

Professor Donna Marshall

Vice-Principal of Teaching and Learning

Professor Séamas Kelly

Vice-Principal of Equality, Diversity and Inclusion

Professor Andreas Hoepner

the UCD Quinn School. Opening in late 2019, key features of the new project include the PwC Lecture Theatre - a transformative space that promotes student dialogue with throwable mics and amphitheatre style seating, the KPMG Skills Zone supports a student's personal and professional skills development, the EY Entrepreneurship and Innovation Hub and the George Moore Digital Collaboration Space enable business students to tackle complex business ideas through the latest advances in learning technology. Extensive co-working spaces mimic those in start-ups and innovation hubs, encouraging informal and formal interactions and collaboration. Media suites, problem-solving classrooms with Oculus virtual-reality headsets, a green roof and slow down zone to encourage mindfulness, are some of the highlights of this forward-looking learning environment.

Overseas, our students brought acclaim to the College and Ireland. UCD Smurfit School MSc International Business student Jessica Toal and UCD Quinn Commerce student Eimear Hickey received the Best Delegates Award at the international Change the World Model United Nations. They are the first ever Irish students to receive the prestigious award and were recognised in front of the full UN General Assembly in New York. At the IBM Technology Case Competition in Georgetown University, Washington DC, five full-time MBA students won overall first prize. In doing so, they became the first non-US team to win the award.

Closer to home, Masters in Project Management students presented their end-of-semester projects which were focused on raising funds and awareness for nine Irish charities. Running since 2008, the annual module reached a milestone by raising over €500,000 for Irish not-for-profit organisations.

New Programme Innovations

Several programmes underwent detailed curriculum reviews during the year to reflect changing industry and student needs. The MSc in Marketing and Retail Innovation was introduced in September to prepare students to succeed in one of the most dynamic industries in the world.

Our Commitment to Teaching Excellence

Dr Linda Dowling-Hetherington was presented with the University Award for Teaching Excellence by Professor Mark Rogers, UCD Registrar and Deputy



Now in its tenth year, the Aspire Scholarship Programme has supported over 100 students as they strive to advance their professional goals through a postgraduate qualification from the UCD Smurfit School.



Dr Laurence Crowley, CBE was recognised with the first Outstanding Contribution to Business Education Award for his leadership and vision as founding executive chairman of the UCD Smurfit School. He was presented the award by UCD President, Prof Andrew Deeks.

President. Linda was one of only six awardees across the University to receive this commendation.

Reflecting the dedication to excellence in all that we do, UCD Smurfit School has again ranked among the world's leading business schools. The Financial Times (FT) awarded our full-time MBA programme a ranking of 89th place globally and Open Enrolment Executive Education programmes were ranked 43rd in the world. In the QS Business Masters Rankings, the successes of our students and graduates are similarly reflected in the high global rankings obtained for individual programmes including the MSc in Business Analytics (18th), MSc Marketing (18th), MSc Finance (29th) and Masters in Management (36th).

Community

Our business alumni community has grown to over 95,000 members in 137 countries, encompassing an engaged community of 40 international alumni chapters. Global activity for the past year includes over 58 business alumni events in locations including Dublin, London, New York and Singapore.

A highlight of this year's UCD Festival was our *Revival* of the Irish Whiskey and Gin Industries Discussion which featured UCD College of Business alumni and whiskey entrepreneurs Jack Teeling (Teeling Whiskey), Brian Fagan (Glendalough Distillery), Gerry Ginty (Powerscourt) and June O'Connell (Skellig Six 18). The popular event was chaired by Gavin Duffy and hosted in the University Club as part of BComm class reunion celebrations.

Our annual Business Alumni Award Gala Dinners in Dublin, New York and London made business and social headlines once again. We also continued our signature events, the BComm reunions, which attracted recordbreaking numbers. This year, we held a total of 12 oncampus events re-engaging over 4,000 alumni for their milestone reunions.

Widening Access

Professor Andreas Hoepner was appointed as the College's first Vice Principal of Equality, Diversity and Inclusion and a committee focused on EDI has been established. Professor Hoepner will join the College Management Team and College Executive to ensure that an EDI perspective is embedded in our decisionmaking processes.

The UCD Quinn School demonstrated its commitment to increasing diversity among undergraduate applicants by taking part in the UCD Access and Lifelong Learning Future You Mentoring Programme. Students from 18 schools across the Dublin and Wicklow region participated in a business-taster session delivered by Professor Anne Keegan and Tara Walsh, with commentary from Stage 2 Business and Law Student Elizabeth Aderogba on her experience of progressing to UCD through the HEAR programme.



Reflecting the dedication to excellence in all that we do, UCD Smurfit School has again ranked among the world's leading business schools. "

Engagement and Partnership

Educational opportunity transforms lives. Supported by far-sighted philanthropic donations, we have been able to offer scholarship support to a range of undergraduate and postgraduate students. In particular, the continuing Aspire Scholarship Programme has supported over 100 students over the past ten years, allowing talented graduates from across the country to advance their professional goals through a postgraduate qualification from the UCD Smurfit School. The UCD Quinn School launched the Business and Society Internship Scholarship awards during the year, providing financial support to students who wish to complete an internship in the non-profit sector.

External networks provide a vital element of the College's infrastructure, allowing us to strengthen links with employers, philanthropic leaders and other leading business schools. We work hard to engage with our external stakeholders and have a multiplicity of engagements with the business world, encompassing internship and mentorship programmes, guest speakers from industry, company projects, and corporateprovided workshops. Year-on-year, we are increasing our focus on the experiential learning opportunities that these partnerships enable.

We continue to actively engage in peer business school networks including CEMS, GNAM, PIM and UNICON. These networks allow us to offer student exchanges and joint programme offerings with leading international Business Schools. In April, UCD Smurfit Executive Development hosted the 2019 Annual GNAM Executive Education Meeting. Representatives from 11 global business schools, and key clients ICON plc and A&L Goodbody, met to discuss Ireland's current economic status and developments in the global market for executive education.

In June, the Euro 2019–30th European Conference on Operational Research was held in UCD and welcomed over 2,300 participants who presented over 2,000 papers. Creating links between industry and business analytics through important conferences such as this, helps to build the international profile of the College and promote the ground-breaking research undertaken by our faculty. The conference was organised by Dr Sean McGarraghy and colleagues from the Management Information Systems subject area.

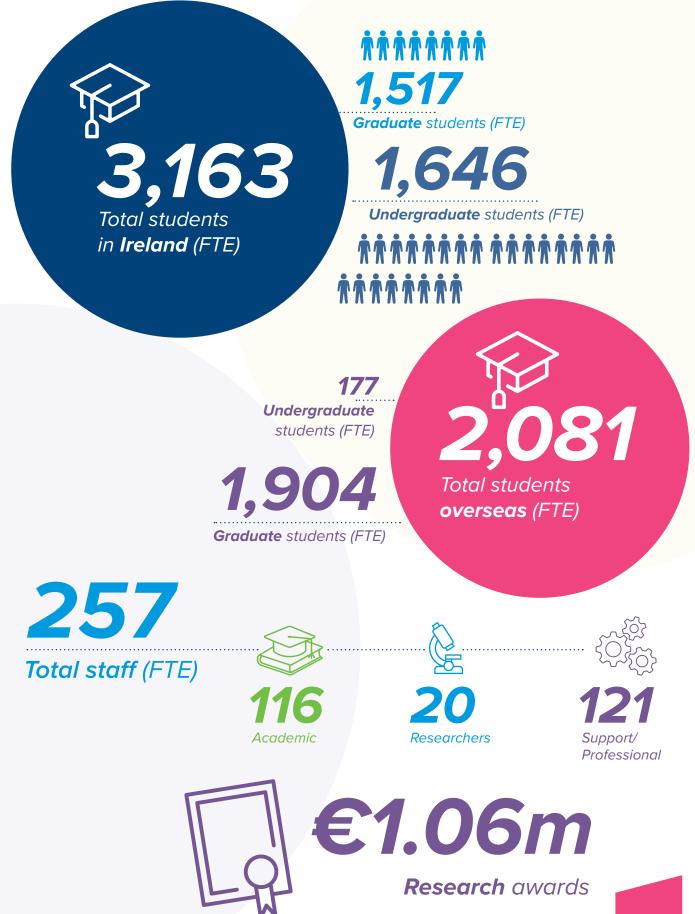
UCD Smurfit School hosted the CEMS Benchmarking Conference where members of the CEMS Global Alliance and Community were in attendance including representatives from over 30 leading Business Schools across the world. The Dublin CEMS Alumni Association was also in attendance, as well as over 20 CEMS Corporate Partners, including Facebook, Google, Salesforce, H&M and P&G.

Professor Anthony Brabazon College Principal and Dean of Business



UCD Business Dean Anthony Brabazon congratulates MSc International Business student Jessica Toal for her achievement of being the first Irish student to receive the Best Delegate Award at the international Change the World Model United Nations.

COLLEGE OF BUSINESS IN NUMBERS



COLLEGE OF ENGINEERING AND ARCHITECTURE



Professor Michael Bruen Interim College Principal and Dean of Engineering

UCD College of Engineering and Architecture enjoyed a successful 2018/19. Three new programmes were successfully launched, and the College continued to attract major research funding and develop its partnerships.

Research, Innovation and Impact

2018/19 has been another strong year for research, innovation and impact in the College with circa €16 million in new external research awards providing funding for over 160 research projects. This includes funding from European programmes, involving extensive international collaborations, addressing societal challenges in ICT, industrial technologies, energy and climate change. For example, Associate Professor Enda Cummins, UCD School of Biosystems and Food Engineering (SBFE) is leading the €2.1 million Horizon 2020 PROTECT Training Network, focussing on predictive modelling of the impact of climate change on food safety. Other awards include a Starting Laureate from the Irish Research Council for Dr Phillip Cardiff. UCD School of Mechanical and Materials Engineering (SMME) for a project applying deep learning methods to enrich engineering simulations of advanced manufacturing processes, and a SFI Starting Independent Grant for Dr Amanda Sosa-Avenandano,

SBFE for a project on transforming agri-waste to high value, low carbon products.

Large-scale research centres continue to grow. I-Form, the SFI Advanced Manufacturing Research Centre directed by Professor Denis Dowling, SMME, received over €4 million for an EPSRC - SFI Centre for Doctoral Training in Advanced Metallic Systems which over five years will provide enhanced PhD training for 25 students in Ireland (shared between UCD and DCU). This Doctoral Training Centre is a joint initiative with the University of Sheffield and the University of Manchester in the UK.

SFI also announced further investment for some SFI Research Centres, including:

• SSPC, the SFI Research Centre for Pharmaceuticals, involving faculty from UCD School of Chemical and Bioprocess Engineering (SCBE): Professor Brian Glennon, Dr Steven Ferguson, Dr Philip Donnellan and Dr Ioscani Jimenez Del Val.

Interim College Principal / Dean of Engineering **Professor Michael Bruen**

New College Principal / Dean of Engineering **Professor Aoife Ahern**

(from 21 June 2019)

Dean of Architecture
Professor Hugh Campbell

Vice-Principal for Equality, Diversity and Inclusion Associate Professor Elizabeth Shotton

Vice-Principal for Internationalisation **Professor Ravi Thampi**

Vice-Principal for Research, Innovation and Impact

Professor David Browne

Vice-Principal for Teaching and Learning

Associate Professor Amanda Gibney

Graduate School Director

Dr Neal Murphy

UCD College of Engineering and Architecture consists of six schools:

- UCD School of Architecture, Planning and Environmental Policy, Head of School Professor Eoin O'Neill
- UCD School of Biosystems and Food Engineering Head of School Professor Colm O'Donnell
- School of Chemical and Bioprocess Engineering Head of School
 Professor Eoin Casey
- School of Civil Engineering Head of School
 Professor Aoife Ahern
- School of Electrical and Electronic Engineering Head of School Associate Professor Peter Kennedy
- UCD School of Mechanical and Materials Engineering Head of School
 Professor Kenneth Stanton



Pictured at the presentation of the SFI Entrepreneurship Award 2018: Prof Mark Ferguson Director General, Science Foundation Ireland and Chief Scientific Adviser to the Government of Ireland; Prof Eoin Casey, recipient of the SFI Entrepreneurship Award 2018; Dr Orlaigh Quinn, Secretary General, Department of Business, Enterprise and Innovation

 INSIGHT II – Ireland's Big Data and Analytics Research Centre, co-led by UCD and involving faculty from UCD School of Electrical and Electronic Engineering (SEEE): Professor Madeleine Lowery, Associate Professor Stephen Redmond and Dr Donal Holland, SMME.

Two new spin-out companies were incorporated during the year with the support of NovaUCD. Equal1 founded by Professor R Bogdan Staszewski, SEEE has been established in the area of quantum computing. ProvEye Ltd, founded by Professor Nick Holden and Dr Jerome O'Connell, SBFE, will deliver end-to-end software solutions for advanced and automated image correction for digital and precision agriculture applications. Two of the European Research Council (ERC) grant holders, Associate Professor Aoife Gowen, SBFE and Professor Madeleine Lowery, SEEE were each awarded an ERC Proof-of-Concept grants to explore the commercial or societal potential of their ERC-funded frontier research results

Publication output continues to be of high quality and impact across the College and has been recognised through various awards. For instance, Professor Eoin Casey, SCBE was awarded the SFI Entrepreneurship Award 2018 for his work on Membrane Aerated Biofilm Reactor (MABR) technology which led to UCD spinout OxyMem. Also, Professor Da-Wen Sun, SBFE has 68 papers labelled as 'Highly Cited' by the Essential Science Indicators (ESI) database and ranks first in Agricultural Sciences in the world.

Professor Sheila O'Donnell, UCD School of Architecture, Planning and Environmental Policy (APEP), and the firm O'Donnell Tuomey, was named the Architect of the Year at the Women in Architecture Awards. She became the first Irish architect to be elected a foreign member of the American Academy of Arts and Letters. During 2018 APEP also celebrated the presentation of UCD Ulysses Medals to alumni and former adjunct professors, Yvonne Farrell and Shelley McNamara, in recognition of their global contribution to architecture, including their appointment as curators of the 2018 Venice Biennale.

Professor John Sheridan, SEEE was made a Fellow of the Institute of Mathematics and its Applications. Professor Orla Feely, SEEE and UCD Vice-President for Research, Innovation and Impact was elected Vice-President



Dr Amanda Sosa-Avendano awarded a Science Foundation Ireland (SFI) Starting Independent Research Grant.

Pictured: Engineers Ireland President, Peter Quinn and Assoc Prof Amanda Gibney on her conferring as a Fellow of Engineers Ireland.

of Engineers Ireland and was elected Vice-President for Resources and Treasurer of CESAER, a non-profit association of leading universities of science and technology in Europe.

Two members of the School of Civil Engineering (SCE) Associate Professor Amanda Gibney and Professor Michael Bruen, became Fellows of Engineers Ireland. Professor Francis Butler, SBFE has been appointed to the Board of the Food Safety Authority of Ireland. Professor Peter Clinch, APEP was nominated as Chairperson Designate of the Board of Science Foundation Ireland and serves as a senior independent adviser to Government on competitiveness, trade and economic policy.

The College continues to highlight publicly its faculty's research excellence through a suite of Impact Case Studies for a non-technical audience, available online

The College continues
 to highlight publicly
 its faculty's research
 excellence through
 a suite of Impact Case
 Studies for a non technical audience,
 available online and on
 interactive touch screens
 in the College. "

and on interactive touch screens in the College. These complement the Wall of Frames that displays the 24 publications with most impact each year.

Education and Student Experience

In September 2018, the BSc in City Planning and Environmental Policy, led by APEP was successfully launched. In China, the BE degree in Civil Engineering Infrastructure started with 117 students. This is a joint degree in collaboration with Chang'an University and is led by UCD School of Civil Engineering.

In September 2018, the ME in Optical Engineering commenced thereby extending the range of disciplines offered at masters level. Our ME programmes remain pre-eminent with sustained industry engagement with our professional work experience programme.

The BSc in Landscape Architecture commenced offering internship opportunities to students in Stage 3 of their studies with considerable interest from students and professional partners. The UCD Architecture programme obtained approval for its new four-year BArchSc programme.

In April 2019, the College of Engineering and Architecture submitted its Athena SWAN application for Bronze Award designation. This College-level application was produced by a team ably led by Associate Professor Elizabeth Shotton (VP EDI) assisted by Associate Professor Donal Finn that produced a robust and far-reaching 70-point action plan following an extensive self-assessment. This will effect a radical transformation within the College, driven by its new Gender Equality Implementation Team.

Engagement and Partnership

UCD Engineering Graduates Association events commenced in September 2018 with the EGA Gold Medal and Award Ceremony, at which EGA Gold Medals were presented to students excelling in their disciplines.

In October 2018 the EGA's Autumn Panel Discussion on 'Engineering Better Health - The Coming Together of Engineering and Health Care' took place. This event brought together panellists for their thoughts on how smart engineering has improved the fields of agriculture, technological engineering, biomedical engineering and medicine.

Held in May 2019, the EGA presented the ARUP Spring Panel Discussion 2019 on 'Water, Energy and the Climate Challenge in 21st Century Ireland'. Kindly

Message from New Principal

I am delighted and privileged to have been appointed Principal of UCD College of Engineering and Architecture and will also hold the position of Dean of Engineering. This is the first time that either position has been held by a female, and I am very honoured.

I would like to thank Professor Michael Bruen for his able and skilful stewardship of the College following the appointment of our former College Principal, Professor David FitzPatrick as President of Technological University Dublin on 1 January 2019. I would also like to express my appreciation to both for their sustained and strong leadership of the College and its development.

The College continues to develop its global collaborations in China and attract high quality graduate students from many regions, increasing its diversity and improving its gender balance. The College remains pre-eminent in Ireland in terms of the breadth and quality of programmes offered and continues to develop new programmes, responding to global needs and challenges. I look forward to supporting Schools in achieving their strategic goals and in their future growth. sponsored by Arup, this well-attended event discussed this intriguing topic with podium contributions from Jerry Grant, former MD of Irish Water; Dr Eddie O'Connor, Chairman of Mainstream Renewable Power; and Peter O'Shea, Head of Corporate and Regulatory Affairs at ESB, with a lively debate moderated by Catherine Buckley, ARUP Ireland's Manager of Water.

Unihand Brine.

Professor Michael Bruen

Interim College Principal and Dean of Engineering



Professor Aoife Ahern College Principal and Dean of Engineering

The College is now embarking on a very exciting period as UCD's Future Campus, in which this College plays a central role through the Centre for Creativity, develops through the planning phase and initial work commences.

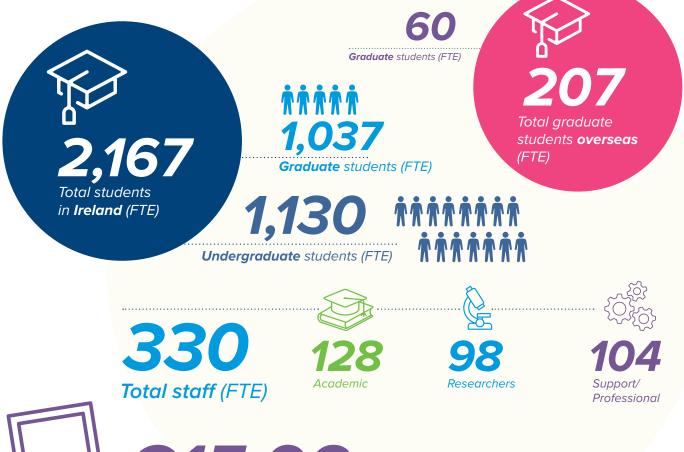
The coming year will be of significance as we prepare to celebrate the centenary of the Schools of Civil Engineering, Electrical and Electronic Engineering, and Mechanical and Materials Engineering. This will be an appropriate opportunity to reflect on the excellence and creativity of the College, its history, its alumni and to look forward to how we can respond and rise to future challenges.



Professor Aoife Ahern College Principal and Dean of Engineering

I am delighted and privileged to have been appointed Principal of UCD College of Engineering and Architecture. "

COLLEGE OF ENGINEERING AND ARCHITECTURE









2018 EGA Gold Medal Winners [back row I-r] Hugh Gowing, Electrical Engineering; Mark Hutchinson, Mechanical Engineering; Conor Power, Electronic Engineering; and Mark McGarry, Civil Engineering. Front row I-r:] Niamh MacPherson, Chemical Engineering; Cathy Goulding, Biomedical Engineering; and Ecaterina Guzun, Structural Engineering with Architecture. Missing from photo: Chloe Loh, Architecture; Mark McGarry, Civil Engineering; Giacomo del Grippo, Biosystems and Food Engineering; Rachel Ward, Engineering with Business

COLLEGE OF HEALTH AND AGRICULTURAL SCIENCES



Professor Cecily Kelleher College Principal

AL MAY MALERIA

This year saw the launch of our Vision, Mission and Strategic Objectives document which outlines our priorities across the areas of research, education and training, global engagement and infrastructure.

These initiatives are driven through our College committees wherein synergies are identified and maximised, as well as by our five constituent Schools.

Our Schools continue to perform well in global rankings with three subjects making it into the top 50: Veterinary Science is ranked 26th, making it the top ranked subject in UCD, Nursing is ranked at 31, and Sports Related Subjects at 50. Agricultural Sciences at UCD are also among the best in the world, according to the latest U.S. News & World Report rankings. Now placed fifth in Europe and 19th globally, UCD is the only Irish university to make the global top 50 in the rankings for Agricultural Sciences.

Reflecting our commitment to the University's Equality, Diversity and Inclusion goals, we welcomed the awarding of a Bronze Athena SWAN award for two of our Schools, UCD School of Veterinary Medicine and UCD School of Agriculture and Food Science. This reflects the commitment and efforts of both faculty and staff. There have been a number of noteworthy individual and team awards achieved across the College.

The UCD *History of the Irish Diet in Plants* garden was awarded a Silver-Gilt Medal in the Large-Concept Garden Category at Bloom 2019. The garden told the story of the Irish diet starting with the early settlers and progressing to the introduction of farming, the impact of industrialisation, and the implications of the modern expansive diet. UCD Landscape Architecture students John McCord, Ciaran Rooney, Hannah Johnston and Niamh Conlan designed the exhibit alongside Dr Caroline Elliott-Kingston, UCD School of Agriculture and Food Science, and Dr Meriel McClatchie, UCD School of Archaeology.

Fulbright Scholarships were awarded to colleagues in UCD School of Nursing, Midwifery and Health Systems to Dr Aoife De Brún and Dr Suja Somanadhan, as well as to Professor Kevin McDonnell, UCD School College Principal
Professor Cecily Kelleher

Vice-Principal for Research Innovation and Impact

Professor David MacHugh

Vice-Principal for Teaching and Learning

Associate Professor Sue Rackard

Vice-Principal for Global Engagement

Associate Professor Pat Felle

Vice-Principal for Health Affairs Professor Tim Lynch

UCD School of Agriculture and Food Science. Head of School and Dean of Agriculture,

Professor Alex Evans

UCD School of Medicine. Head of School and Dean.

Professor Michael Keane

School of Nursing, Midwifery and Health Systems. Head of School and Dean of Nursing,

Professor Gerard Fealy

UCD School of Public Health, Physiotherapy and Sports Science. Head of School and Dean of Performance Science, **Professor Giuseppe De Vito**

UCD School of Veterinary Medicine.

Head of School and Dean, Professor Michael Doherty of Agriculture and Food Science. Ronan Mullins, Assistant Professor in Small Animal Surgery, was awarded the Professor Peter Holt Award for Clinical Research by the Association of Veterinary Soft Tissue Surgeons.

Alumni awards were presented to Dr Rhona Mahony, first woman Master of the National Maternity Hospital and to Dr Ann Derwin, Director General, Global Irish Services in the Department of Foreign Affairs and Trade. Honorary doctorates were awarded to Professor Patrick Brennan for his work developing new ways to combat infectious disease, Brother Tony Dolan for his enormous contribution to sustainable agriculture and agricultural education in Ireland, Kenya and Uganda and to the late Dr Laura Brennan in recognition of her tireless efforts as an advocate for the HPV vaccine.

Research, innovation and impact

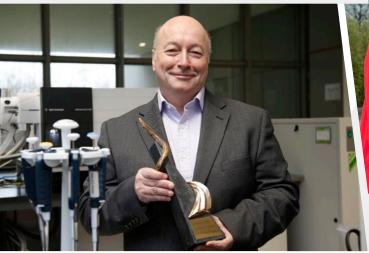
The Governing Authority approved the establishment of the UCD Centre for Interdisciplinary Research, Education and Innovation in Health Systems (IRIS), with Professor Eilish McAuliffe as Centre Director. The Centre's establishment is the culmination of several years of growth in health systems research and will be the locus for future interdisciplinary collaboration in education and research across the Schools and Institutes in the College.

St Vincent's University Hospital and UCD opened a new PET CT Research Imaging Centre where the latest technology will be applied to patient treatment and advanced research in major diseases, primarily cancer, dementia and cardiac disease. With the high sensitivity and resolution of the scanner, radiologists will now access higher quality images as part of their diagnostic investigations. This means earlier detection and more accurate diagnosis of diseases. The new technology will also be used by clinical researchers at UCD and St Vincent's University Hospital to advance the medical scientific understanding of several diseases and to help determine better patient treatments.

Education and student experience

Students across the College have taken part in community engagement and fundraising activities. Stage two BSc Sports and Exercise Management students hosted 'Wellness Wednesday' in conjunction with Healthy UCD, promoting the need for mental health awareness, while also raising funds for Pieta House. UCD's AgSoc continues its record of charity fundraising, this year raising a record-breaking €65,000 for their two chosen charities,

Pictured at the UCD Conway Institute is Prof Stephen Pennington, UCD School of Medicine, recipient of the NovaUCD 2018 Innovation Award.





Dr Laura Brennan RIP receiving an honorary doctorate in December 2019, with Prof Cecily Kelleher and Prof Donal Buggy.



UCD School of Veterinary Medicine Sporting Greats panel with the Dean, Professor Michael Doherty (I-r: Derek McGrath, Fiona O'Brien, Dermot Weld, Michael Doherty, Sue Rackard, Susie Mitchell, Brian Dooher and Shane McGuckin.

The Irish Motor Neurone Disease Association and The Kevin Bell Repatriation Trust.

UCD Physio Hub, which promotes physical activity and healthy lifestyles through community exercise and health promotion programmes, was awarded a University Award for Outstanding Contribution to Student Learning. Physio Hub has become an exemplar of innovation, addressing the health needs of the local and wider community as students learn in a variety of real-world settings.

Engagement and partnership

The promotion and fostering of partnerships with external stakeholders is a key tenet of our College ethos, and this continued both nationally and internationally this year.

UCD School of Nursing, Midwifery and Health Systems hosted the 6th Annual Lean Symposium, a Palliative Care Education Seminar in partnership with the All-Island Institute of Hospice and Palliative Care and EDUPALL, the Rare Diseases Research Partnership (RainDRoP) Workshop, and the All-Island Children's Critical Care Nursing Symposium. In July, UCD School of Veterinary Medicine hosted 'UCD Veterinary Sporting Greats', welcoming a host of sports stars including Derek McGrath, CEO of the Curragh, legendary racehorse trainer Dermot Weld and Six Nations winning Irish Women's Rugby player, Fiona O'Brien. The event was hosted by RTÉ's Evanne Ní Chuilinn, with a panel discussion involving our veterinary sporting greats forming the centerpiece of the night.

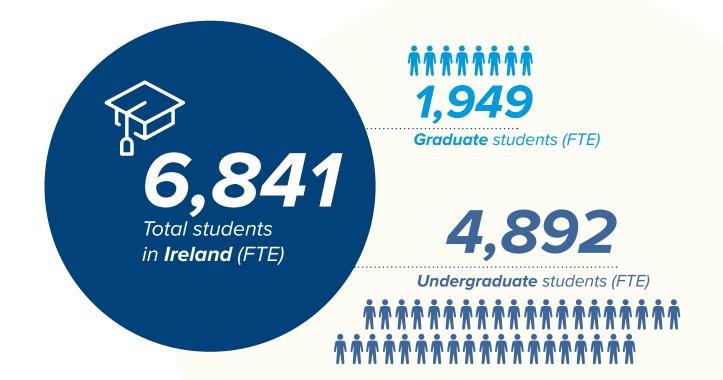
UCD, Teagasc and the Institute of Animal Science, Chinese Academy of Agricultural Sciences (CAAS) signed an agreement in Beijing in May 2019, to form the China-Ireland Sustainable Dairy Development Centre. The purpose of the Centre is to foster institutional links between the parties, to support research that will generate new knowledge, and to improve technology exchange to promote sustainable dairy farming systems in China and Ireland. The Centre will focus on three key areas Technology Extension, Research and Exchange, and Training, Education and Talent Development.

Comple

Professor Cecily Kelleher College Principal

Students across the College have taken part in community engagement and fundraising activities. "

COLLEGE OF HEALTH AND AGRICULTURAL SCIENCES IN NUMBERS













COLLEGE OF SCIENCE



Professor Joe Carthy College Principal and Dean of Science

I am pleased to report that the UCD College of Science has continued to grow from strength to strength in 2018/19 with significant achievements in all of our major areas of activity.

The UCD common entry course Science DN200 continues to be the most popular common entry Science course in Ireland, attracting over 700 first preferences with a minimum CAO points of entry of 521 in 2019. Computer Science DN201 and Actuarial & Financial Studies DN230 also demonstrated increased interest from CAO applicants with a rise in first preferences and CAO points. A key objective of the College of Science is to widen participation in our programmes. I am very pleased that in 2019, the number of stage 1 students who applied via the HEAR, DARE, QQI/FET and mature applicant pathways has grown from 20% to 26.7% of the cohort.

The College has continued to maintain a high profile in terms of its global engagement activities. Across the last year the College has participated in more than 40 faculty-led visits to high schools in mainland China, Hong Kong, Singapore, Vietnam, Thailand, Malaysia, India, Dubai, South Africa and the USA. These visits have served to showcase some of the current research being pursued, with the aim of providing inspiration to the next generation of scientists to choose UCD Science. Across the College the cohort of international students on our programmes has now passed the 1,000 mark for the first time, bringing incredible diversity into the classroom, with benefit to these students and our domestic students.

The College has increased its EDI activities and Dr Antoinette Perry was appointed Vice-Principal for EDI. Achievements from the year include:

- The School of Biomedical and Biomolecular Science (SBBS), under the leadership of Associate Professor Siobhán McClean, was awarded the Athena SWAN Bronze medal.
- Training workshops in Unconscious Bias and 'aliens and astronauts' about embracing diversity and increasing awareness of cultural sensitivity, were well attended.

Vice-Principal for Teaching and Learning Associate Professor Carmel Hensey

Vice-Principal for Equality, Diversity and Inclusion

Dr Antoinette Perry

Vice-Principal International

Professor Jeremy Simpson

Deputy Vice-Principal International Assoc Prof Eleni Mangina

ASSOC FIOI Eleni Mangina

Vice-Principal for Research and Innovation

Associate Professor Tara McMorrow

Associate Dean for International Study (North America)

.....

Dr Jennifer Mitchell

Associate Dean for Widening Participation

Professor John O'Connor

Graduate School Director Associate Professor Paul McCabe

The College of Science consists of seven schools:

- School of Biology and Environmental Science Head of School, Professor Jeremy Simpson
- School of Biomolecular and Biomedical Science Head of School, Professor Wim Meijer
- School of Chemistry Head of School, Professor Gareth Redmond
- School of Computer Science
 Head of School, Professor
 Pádraig Cunningham
- School of Earth Sciences
 Head of School, Associate
 Professor Patrick Orr
- School of Mathematics and Statistics
 Head of School, Professor
 Brendan Murphy
- School of Physics Head of School, Professor Martin Grunewald

Pictured at the launch of the SFI Centre for Research Training (CRT) in Foundations of Data Science are Prof Orla Feely (UCD VPRII), Assoc Prof Claire Gormley (UCD VRT Director) and Prof Nial Friel (UCD CRT Vice-Director) with the 2019 UCD cohort of nine PhD students funded by the CRT



and members of the supervisory body. The SFI CRT in Foundations of Data Science is a €13 million collaborative training programme with the University of Limerick and Maynooth University that will train 139 PhD students over the next seven years, 46 of which will graduate from UCD.

- Four of our scientists participated in Soapbox Science, a public engagement initiative that enables scientists share their research in a rather unique and engaging way, literally on top of a box in the middle of the street! Associate Professor Siobhán McClean (SBBS) spoke about her team's research on vaccines; Pallavi Kumari and Fengyuan Zhang, PhD students at UCD School of Physics and Dr Nicole Beisiegel, UCD School of Mathematics and Statistics gave an insight into how maths can improve storm predictions.
- UN International Day of Science, was recognised in UCD with an exhibition of female role models from diverse roles in the College of Science, including students, faculty, technical and support personnel. It was a great celebration of the diverse range of talents, knowledge and hard work of the women in UCD Science across all sectors.
- Transitioning to third-level education brings many challenges. The EDI committee together with Catriona Keane, College of Science Student Advisor, designed a survey to understand how included UCD science students feel during their first year on campus. The results suggest that students find activities such as peer-mentoring are a great way of meeting others in Science and making new friends. Long commuting times was identified as a factor that may be prohibiting engagement with activities on campus.

Teaching and Learning

Following a competitive teaching and learning awards process five College of Science faculty received Teaching Excellence awards in recognition of their outstanding contributions to the pursuit of teaching excellence and the enhancement of student learning: Associate Professor Carmel Hensey (SBBS), Professor Breandán Kennedy (SBBS), Assoc Professor Paul McCabe (SBES), Dr Lennon Ó'Náraigh and Dr Richard Smith (SMS). Professor Kennedy was further honoured with a University Teaching Excellence Award.

Associate Professor Carmel Hensey received a two-year research fellowship in teaching and academic development. This fellowship supports university-wide enhancement in teaching and learning through strategic policy and practice-based research, the focus being Designing for Learning in our VLE (Virtual Learning Environment).

Research and Impact

This has been a one of our most successful years in terms of winning research funding. Highlights include:

Collaborating colleagues from UCD Schools of Agriculture and Food Science, Computer Science, Public Health, Physiotherapy and Sports Science, Electrical and Electronic Engineering, Mathematics and Statistics and Mechanical and Materials Engineering were awarded €16.3 million in a second cycle of SFI



Pictured at the AI for Good lecture are (I-r) Dr Sulagna Maitra (UCD), Prof Brian Fitzgerald (UL), Leila Toplic (NetHope), Prof Andrew Deeks (UCD), Kristin Tolle (Microsoft), Cameron Birge (Microsoft), Michael Tjalve (Microsoft), Ross Smith (Microsoft), Dr Anthony Ventresque (UCD) and Prof Patricia Maguire (UCD),

support for a project entitled INSIGHT II – Ireland's Big Data and Analytics Research Centre Effective (Phase 2). Likewise, faculty from the UCD School of Chemistry were awarded €1.2 million from SFI for a project entitled Synthesis and Solid State Pharmaceutical Centre (Phase 2).

Professors Pat Guiry, UCD School of Chemistry and Kevin O'Connor, UCD School of Biomolecular and Biomedical Sciences, were awarded €4.4 million from SFI for an EPSRC-SFI Centre for Doctoral Training, with the University of Nottingham.

SFI awarded €3.9 million to collaborating colleagues in the UCD Schools of Computer Science and Mathematics and Statistics for a project entitled VistaMilk SFI Research Centre, and Enterprise Ireland awarded €12 million to Dr Edward McDonnell, UCD School of Computer Science, for a project entitled CeADAR Nua Centre for Applied Data Analytics and Machine Intelligence

Dr Brian Mac Namee and Dr Georgiana Ifrim, UCD School of Computer Science and colleagues from seven UCD schools with collaborations at DCU and TU Dublin were awarded over €15 million in SFI funding to establish Ireland's national centre for PhD training in machine learning, hosted by UCD.

Associate Professor Claire Gormley with Professors Nial Friel and Brendan Murphy were awarded €5.3 million from SFI to lead the SFI Centre Centre for Research Training (CRT) in Foundations of Data Science.

Professor Murray Hitzman, UCD School of Earth Sciences, iCRAG, was awarded €1.2 million from SFI for a project entitled iCRAG Environmental Geosciences PhD Programme.

Professor Pádraig Cunningham and Dr Mark Scanlon, UCD School of Computer Science and Professor Denis Shields, UCD Conway Institute have secured two collaborative doctoral partnerships with the JRC awarded across Europe.



Soapbox Science returned to the streets of Dublin with twelve female scientists on their soapboxes talking about their research in areas of science, technology, engineering, mathematics and medicine – pictured is Associate Professor Siobhán McClean on her subject: We need to talk about vaccines – using bacteria's stickiness to prevent infection.

Innovation

Assistant Professor Emmanuel G Reynaud, UCD School of Biomolecular and Biomedical Science and Professor Brian Rodriguez, UCD School of Physics, both fellows of the UCD Conway Institute, founded Naiad Ltd, a new UCD spin-out company to develop a 3D Bioprinter that controls 'bio-ink' properties to better mimic the structure and function of tissues.

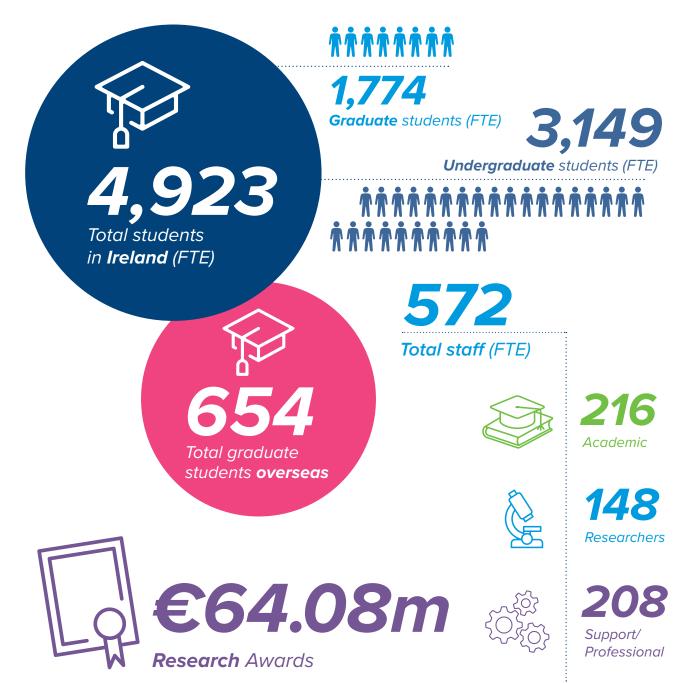
Associate Professor Dominic Zerulla, UCD School of Physics has launched Pearlabs Technologies, a NovaUCD spin-out that is developing a plasmonic based microscope system that will enable ultra-high resolution of samples.

Professor Keith Murphy, UCD School of Biomolecular and Biomedical Science has established Reneurx Research and Development to develop Nefiracetam for the treatment of multiple sclerosis.

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Professor Joe Carthy College Principal and Dean of Science

COLLEGE OF SCIENCE IN NUMBERS



COLLEGE OF SOCIAL SCIENCES AND LAW



Professor Colin Scott College Principal and Dean of Social Sciences

UCD College of Social Sciences and Law is a leading centre for education and research in social sciences and related disciplines. The academic year 2018/19 has been a very successful one across our educational activities, research successes and community engagement.

During this period the College attracted major research funding and embedded the new Social Sciences degree programmes into the curriculum.

The College received recognition in the 2019 QS World Rankings (QSWUR) with Library and Information Management ranked in the top 50 in the world and the following subjects ranked in the top 100 – Law, Politics and International Relations, Philosophy, Archaeology, and Social Policy and Administration. All the Schools of the College are represented in the top 250 in the world in QSWUR for the first time. In addition, UCD Sutherland School of Law was ranked in the top 50 in the world in the 2019 Times Higher Education Subject rankings.

Education and Student Experience

The first year of the newly configured Social Sciences degree programmes was successfully implemented

with over 740 students registered in September 2018. At the heart of these changes is a new four-year Social Sciences Programme which, with 500 entrants each year, is the largest programme in UCD. This new programme offers joint majors and new subject combinations, such as Computational Social Science and Politics, Philosophy and Economics (PPE) and has a strong focus on broadening learning experiences and skills, for example through study abroad, internship opportunities and a strong focus on methods and research. These reforms were the culmination of work over the last number of years under the leadership of Associate Dean of Social Sciences Dr Sara O'Sullivan and College Director Mary Gallagher-Cooke and reflected the strong commitment of the College team and Schools involved who were instrumental in delivering the new programmes.

FAST

College Principal / Dean of Social Sciences: **Professor Colin Scott** Associate Dean of Social

Sciences: **Dr Sara O'Sullivan** Vice-Principal for Research, Innovation and Impact: **Professor**

Aisling Reynolds-Feighan Vice-Principal for Teaching

and Learning:

Dr Niamh Moore Cherry Vice-Principal for Global Engagement: Dr Richard Collins Vice-Principal for Equality Diversity and Inclusion:

Professor Judith Harford

Director of Graduate School and Vice Principal for Graduate Studies: **Dr Nuala Brady**

UCD College of Social Sciences and Law consists of 11 Schools

- UCD School of Archaeology Head of School Professor Graeme Warren
- UCD School of Economics Head of School Professor Ronald Davies
- UCD School of Education
- Head of School
 Professor Dympna Devine
- UCD School of Geography Head of School
 Professor Jacky Croke
- UCD School of Information and Communication Studies Head of School
 Professor Eugenia Siapera
- UCD School of Law Head of School and Dean of Law Professor Imelda Maher
- UCD School of Philosophy Head of School
 Professor Maria Baghramian
- UCD School of Politics and International Relations Head of School Professor David Farrell
- UCD School of Psychology Head of School Professor Alan Carr
- UCD School of Social Policy, Social Work and Social Justice, Head of School Professor Michelle Norris
- UCD School of Sociology Head of School
 Dr Iarfhlaith Watson

A number of teaching and learning initiatives that foster education excellence within the College included further work undertaken by Associate Professor Niamh Moore Cherry, Vice-Principal for Teaching and Learning. The College Teaching and Learning committee actively supported the development of the new Social Sciences Programme through the establishment of three cross-School working groups focusing on: Supporting experiential learning at Stage 3; Embedding research in the undergraduate curriculum; and Enhancing a culture of students as partners. The work of these groups responded to the learning outcomes and approaches outlined in the initial programme proposals and the final reports provide a resource to enable Schools to be creative and innovative in developing their curricula.

In the second round of University Teaching and Learning awards, 475 nominations for faculty and staff across the College were received. Following a very difficult decisionmaking process, 13 College level awards and 1 team award were made. Four colleagues were nominated to the University level awards schemes and we were delighted that Assistant Professor Shane Bergin, UCD School of Education and Assistant Professor Sarah Morton, UCD School of Social Policy, Social Work and Social Justice were two of the five faculty celebrated and recognised by the University.

College Vice-Principal for Graduate Studies, Dr Nuala Brady worked with colleagues in Access and Lifelong Learning, to introduce Widening Participation Scholarships for graduate students by way of a fee waiver on taught masters programmes. Six Widening Participation scholarships were awarded in 2018/19 to students in UCD Schools of Psychology, Social Policy, Social Work and Social Justice, Politics and International Relations, Law, Education and UCD College of Social Sciences and Law.

The annual Graduate Research Symposium took place on 2 May in UCD Sutherland School of Law with excellent student presentations on diverse topics in social sciences, law and business. Professor Aidan Moran delivered a very entertaining and informative talk on 'How to Get Published' in a workshop chaired by Professor Karl Whelan. This annual event offers our PhD students the opportunity to present and showcase their research and engage with interesting panel discussions following their presentations.

In April 2019, the launch of Ireland's first academic programme to help improve digital policy creation was launched in partnership with Microsoft. The programme will include certificate, diploma and masters level qualifications in Digital Policy Studies, and to facilitate its delivery, the appointment of an Assistant Professor in Digital Policy at UCD is planned. This programme builds on existing expertise in the College on topics including transparency in electoral processes, trust and expertise, competition law and policy, regulation, data privacy and hate speech amongst others.

Pictured at the Boston Alumni event are (I-r): Prof Colin Scott, Prof Samantha Power, Prof Cass Sunstein and Prof Liam Kennedy.





Masters students from UCD Sutherland School of Law and students from UCD School of Politics and International Relations took part in a field trip to Brussels. The trip included talks from UCD alumni working in Brussels, NGOs and private companies, meetings with European Parliamentarians, European Commissioners, and a visit to the European Investment Bank.

Research, Impact and Innovation

The number of academic staff increased for the fifth consecutive year with 212 full-time equivalent faculty members in December 2018. The number of PhD students increased to 409 in December 2018, a 16% increase since 2015. The College had the second highest proportion of research active faculty in the University and this has been increasing steadily since 2016.

The College had significant research highlights during the year with the total number of successful applications increasing for the fourth successive year, and the total research income matching the \in 10 million achieved in 2017/18.

Notable achievements during the past year included prestigious European Research Council (ERC) Consolidator Grants awarded to Professor Eoin Carolan, UCD Sutherland School of Law for his project

The College had the second highest proportion of research active faculty in the University and this has been increasing steadily since 2016.["] entitled 'The Foundations of Institutional Authority: A Multidimensional Model of the Separation of Powers' and to Professor Kath Browne, UCD School of Geography for her research project called 'Opposing Sexual and Gender Rights and Equalities: Transforming Everyday Spaces'.

UCD School of Education achieved successes in significant research awards from the National Council for Curriculum and Assessment (NCCA) and from Concern Worldwide. Launched on 25 October 2018, Children's School Lives (CSL) is a new longitudinal study commissioned by the National Council for Curriculum and Assessment (NCCA) and conducted by UCD School of Education. The study will explore the lived experiences of children in Irish primary schools and will follow approximately 4,300 children through their



Prof Colin Scott, Dr Aidan Regan, Mrs Sabina Higgins, President Higgins and European Governance masters students Marek Sustak, Janina Kopfmuller, Andrea Briones, Lauren Nicole Laurenceau, and Sophia Benzmann attending the launch of the new Jean Monnet Centre of Excellence in the New Political Economy of Europe.



Minister of State for Higher Education Mary Mitchell O' Connor attended the Irish Research Council-funded symposium on gender equality in higher education at the Royal Irish Academy organised by Prof Judith Harford, VP EDI.

Prof Colin Scott greeting President Michael D Higgins at the 2019 Irish Young Philosopher Awards held in O'Reilly Hall in May 2019.

primary school years. The landmark research is the first systematic attempt to track the same group of children from pre-school and primary into secondary school. The study's core management team includes Professor Dympna Devine (Principal Investigator) and Assistant Professor Jennifer Symonds (Co-Pl) along with Assistant Professor Seaneen Sloan (Co-Investigator) and Assistant Professor Deirdre McGillicuddy. Concern Worldwide funded a project entitled 'Safe Learning Model in Sierra Leone', with a team from UCD School of Education comprising Professor Dympna Devine, Assistant Professor Seaneen Sloan, Assistant Professor Jennifer Symonds and Professor Ciaran Sugrue.

Faculty continue to publish and produce high impact research outputs. The College's field-weighted citation impact has climbed steadily over the last five years and rose to 1.39 in 2018/19, indicating that citations from published work are cited 39% higher than the global average (as recorded by Elsevier SciVal).

The prestigious Brown Democracy Medal 2019 recognised the Irish Citizens' Assembly Project, an initiative which has transformed Irish politics over the past decade and was jointly led by Professor David Farrell, Head of UCD School of Politics and International Relations and Dr Jane Suiter, DCU. The project which started in 2011 has led to a series of significant policy decisions, including being a precursor to successful referenda on the 8th Amendment of the Constitution of Ireland and marriage equality.

Equality, Diversity and Inclusion

The College recently appointed Professor Judith Harford as its first Vice-Principal for Equality, Diversity and Inclusion. In this role Judith is leading the development of a committee with representation from all Schools to underpin and enhance work to implement and enhance University policies on Equality, Diversity and Inclusion and to participate in key programmes such the Athena Swan Charter. UCD School of Archaeology was the first School in the College to secure Bronze recognition in 2019, which testifies to their understanding of challenges to gender equality in the School with a commitment to implement an effective gender equality action plan.

Community and Engagement

We continue to engage with our alumni worldwide at events co-ordinated by both the College and the Alumni Relations team. In November 2018, an enthusiastic group of alumni gathered at the Harvard Club of Boston to hear UCD Ulysses medallists, former US Ambassador to the UN and Harvard Professor, Samantha Power and her husband, Professor Cass Sunstein in conversation with Professor Liam Kennedy, Director of UCD Clinton Institute.

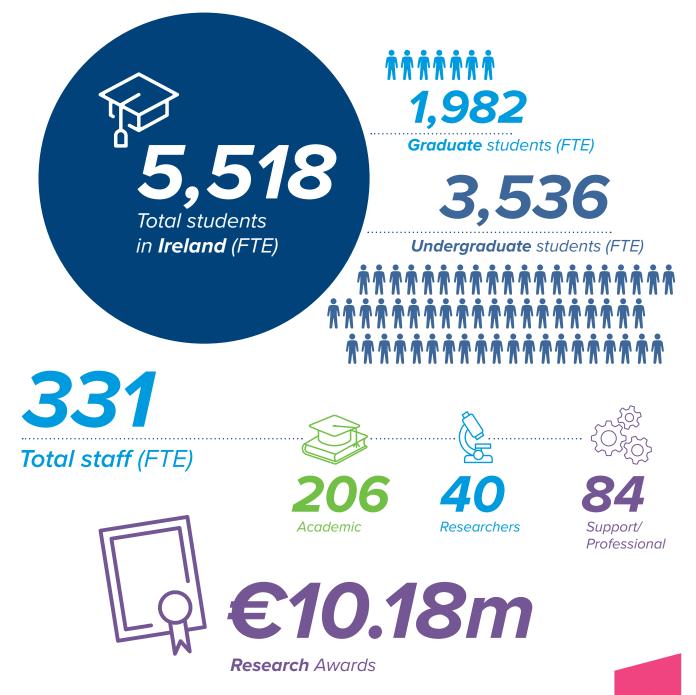
In March, over 60 UCD alumni gathered at the Embassy of Ireland in Brussels in March to mark the annual UCD School of Politics and International Relations and UCD Sutherland School of Law postgraduate student field trip to the European institutions and the event was hosted by Ambassador Helena Nolan.

The College was delighted to participate and sponsor a prize in the BT Young Scientist and Technology Exhibition in the Social and Behavioural category in January 2019. The prize was awarded to fourth year students from Coláiste Treasa, Kanturk, Co Cork for their project 'What Do You Think of Me? A statistical analysis of adolescents and elderly people's perceptions of aging'. In addition, the College supported the Irish Young Philosopher of the Year Awards organised by UCD School of Philosophy in May and were delighted to welcome President Michael D Higgins and Mrs Sabina Higgins to the awards ceremony. The College also supported the Young Economist of the Year awards organised by Rachel Farrell, UCD School of Education. These three events targeted at both primary and secondary schools' students provide a platform to develop an early interest in studying Social Sciences.

The College hosted a number of significant and high-profile events this year, including in March 2019, a celebration of the life and contribution of the late Peter Sutherland SC (BCL 1967), one of UCD's most distinguished alumni and a great European, who made a remarkable contribution to international education and global understanding. The event at UCD Sutherland School of Law was attended by faculty, alumni and friends, included Erasmus Law students speaking about their experiences of the exchange programme founded by Peter Sutherland when he was EU Commissioner for Competition Policy and Education.

Professor Colin Scott College Principal and Dean of Social Sciences

COLLEGE OF SOCIAL SCIENCES AND LAW



UNIVERSITY AWARDS

UCD Alumni Award Winners 2018

Celebrating the outstanding achievements of UCD's global alumni who are a source of great pride to the University.



Dr Ann Derwin, 2018 UCD Alumni Award in Agriculture and Veterinary Science

Having started out in veterinary practice, Dr Ann Derwin joined the Department of Agriculture, Food and Marine in 1992. She was appointed Assistant Secretary in 2016, becoming the first woman to serve on the management board of that department. Ann is a passionate advocate of the need to enhance the role of women in the agrifood sector. Since 2017, she has worked as DG, Global Irish Services in the Department of Foreign Affairs and Trade where she leads gender equality and diversity initiatives.



Fintan O'Toole, 2018 UCD Alumni Award in Arts and Humanities

Fintan O'Toole is one of Ireland's most influential public intellectuals and a critical voice on politics and the arts. His writing career began as theatre critic with In Dublin, a role he later took up with The Sunday Tribune, The New York Daily News and The Irish Times. In 1988 he joined the Irish Times and his column has featured there for 30 years. He has written books on theatre, politics, biography and cultural history.



Jane Ann McKenna, 2018 UCD Alumni Award in Business

Through her work with Médecins Sans Frontières (MSF), Jane Ann McKenna has built up extensive on-theground experience in delivering emergency medical aid to some of the most acute conflicts in Africa, Middle East and Asia. As former Director of MSF Ireland, she led the strategic growth and development of their Irish office and was actively involved in engaging Irish audiences and advocating on humanitarian issues including Ebola, the Syrian conflict and the refugee crisis.



John Carey, 2018 UCD Alumni Award in Engineering and Architecture

John graduated with a degree in Chemical Engineering in 1983 and built his career leading a number of global businesses. He has lived and led businesses in Europe, Africa and the USA and has a unique skillset in transforming and growing businesses in highly complex and turbulent environments. Most recently, as Deputy CEO of ADNOC Distribution in Abu Dhabi, John led their recent IPO, the largest international IPO in the Middle East in over a decade.



Dr Rhona Mahony, 2018 UCD Alumni Award in Health Sciences

As the first female master since the foundation of the National Maternity Hospital, Dr Rhona Mahony oversees one of Europe's largest maternity hospitals. A specialist in fatal foetal abnormalities and maternal medicine, she founded the National Maternity Foundation, which supports the work of the NMH. She is a Fellow of the RCOG UK, and of the RCPI in Ireland. In 2016 she was awarded an honorary Fellowship of the American College of O&G and an honorary Doctorate of Medicine from NUI for her contribution to women and infant health.



Vincent Keaveny, 2018 UCD Alumni Award in Law

Vincent Keaveny is a partner at international law firm, DLA Piper LLP, with a stellar career advising banks and companies throughout the UK and Europe on banking, finance and capital markets matters. He is an outstanding role model for UCD Law students, who he is supportive of and the firm is most accommodating with internships and student visits. Vincent is one of the City of London's 25 Aldermen since 2013 and was elected as one of two City of London Sheriffs for 2018/19, a title dating back to the 14th century.



Dr Julie McEnery, 2018 UCD Alumni Award in Research, Innovation and Impact

An astrophysicist at NASA's Goddard Space Flight Center, Julie McEnery received her PhD in Physics from UCD in 1997. She has worked for over ten years in the field of high energy gamma-ray astrophysics, working with all elements of the mission as the Project Scientist for the Fermi Gamma-ray Space Telescope. Alongside her work in NASA, she is Adjunct Professor of Physics at the University of Maryland and at the George Washington University. In 2011, she was elected a fellow of the American Physical Society.



Dr Gráinne Healy, 2018 UCD Alumni Award in Social Sciences

As a long-standing feminist activist, Dr Gráinne Healy is a celebrated leader in gender equality and social justice. Working in activism for the past 40 years, she was instrumental in helping to turn Ireland into a nation of equals in May 2015 as co-head of the Yes Equality Campaign, which led and won the marriage equality referendum. She is founder and chairperson of Marriage Equality Ireland since 2004. She is Chairwoman of the European Women's Lobby Observatory on Violence against Women and is a former Chairwoman of the National Women's Council of Ireland.



Dr Michael Byrne, 2018 UCD Alumni Award in Science

Dr Michael Byrne is a physicist who used theoretical knowledge from his degree to invent a new technology which he has turned into a global business. He graduated with a BSc in Physics and a PhD in Atmospheric and Aerosol Physics in 1976. From his involvement in the development of the basic ionisation smoke alarm, in 1988, he was part of a management buyout of Ei Electronics, the leader in residential fire products, and the originator of a wide range of innovative products.



Rob Kearney, 2018 UCD Alumni Award in Sport

Having achieved at the highest level in his rugby career, international rugby player Rob Kearney is one of the top fullbacks of the modern era. Rob emerged as a real prospect playing schools rugby at Clongowes Wood College. He first played for Leinster as a schoolboy and the U19s, before becoming a senior in 2005, amassing 202 appearances and 223 points. His Ireland debut was against Argentina in 2007 and he has 84 caps for Ireland. He has won four Six Nations titles and was on the winning British and Irish Lions team in their test series against Australia.

Honorary Degrees



Laura Brennan RIP - Honorary Degree of Doctor of Literature

HPV vaccine campaigner Laura Brennan received an honorary degree in recognition of her advocacy in highlighting how the HPV vaccine protects girls from developing cervical cancer as adults. The 26-year-old was diagnosed with cervical cancer and decided to become involved with the HSE's campaign to restore public trust in the HPV vaccine after her cancer was diagnosed as terminal.



Dr Kate Coleman - Honorary Degree of Doctor of Medicine

This award was given in recognition of Dr Coleman's extensive philanthropic efforts in Africa which have resulted in the provision of accessible, expert, ophthalmic care and over 250,000 sight-restoring surgical procedures.



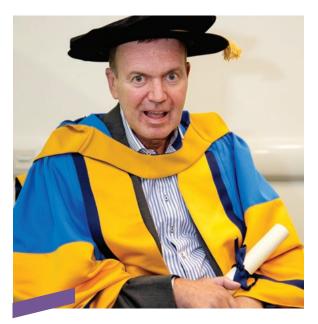
Professor Patrick Brennan - Honorary Degree of Doctor of Science

The award was given in recognition of Professor Brennan's distinguished research career, which has focused on the study of mycobacteria, a diverse group of bacteria that include some of the most important disease-causing bacteria in humans and animals globally. This research opened up new understanding of how these bacteria function at the molecular level, information that has catalysed the development of new drugs, diagnostics and tools for the control of mycobacterial diseases.



Professor Randall Collins - Honorary Degree of Doctor of Literature

One of the world's foremost sociologists and the leading American sociologist alive today, Dr Randall Collins has published more than a hundred articles and books since finishing his undergraduate education.



Fr Tony Coote RIP - Honorary Degree of Doctor of Science

Fr Tony Coote RIP was a former chaplain at UCD for almost ten years. When diagnosed with motor neurone disease, he refused to allow his deteriorating mobility stop him from completing a 550km pilgrimage from Letterkenny to Ballydehob during 2018. Friends and family gathered to celebrate his achievements, which include setting up UCD Volunteers Overseas with Professor Frank Monaghan, as well as launching the 'Please Talk' campaign. originator of Riverdance for the 1994 Eurovision Song Contest that she created a moment of cultural exuberance shared across Ireland, Europe and the wider world.



Adjunct Professor Mary Lawlor - Honorary Degree of Doctor of Laws

Adjunct Professor Mary Lawlor's name is synonymous with the organisation that she founded in 2001, Frontline Defenders – a group dedicated to supporting people throughout the world who are at risk because of their work in promoting and safeguarding those rights enshrined in the Universal Declaration of Human Rights.



Moya Doherty - Honorary Degree of Doctor of Literature

As a pioneering broadcaster and executive director, Moya Doherty has played a seminal role in the nurturing and development of creative talent in Ireland and beyond. It was as commissioning producer and



Professor John J McConnell - Honorary Degree of Doctor of Laws

Professor John J McConnell is a leading financial economist, and is renowned for his stellar leadership in the finance discipline.



Professor John O'Connor - Honorary Degree of Doctor of Science

A graduate from UCD Engineering with a BE in Mechanical and Electrical Engineering in 1956, Professor John O'Connor brought pain relief to hundreds of thousands with the development of his revolutionary 'Oxford Knee'.



John O'Loughlin Kennedy - Honorary Degree of Doctor of Science

Graduating with a BA in Economics from UCD in 1953, John O'Loughlin Kennedy has had an illustrious career in both the private and public sectors. With his wife, Mr O'Loughlin Kennedy established Concern Worldwide.





Professor Gary Paul Pisano - Honorary Degree of Doctor of Literature

Professor Gary Paul Pisano has dedicated his career to education and research of the world of business, and more specifically the question why the biotechnology industry has failed to deliver on its promise. His critique of the industry provided a roadmap for companies and management teams who were looking for ways to improve their industry's performance.

UCD Ulysses Medals 2018/19



Yvonne Farrell and Shelley McNamara

Yvonne Farrell and Shelley McNamara are the founding directors of Grafton Architects. They boast an impressive list of awards and accolades, including the World Building of the Year award in 2008, RIBA International Award in 2016, and the RIAI Gold Medal in 2018. They have held distinguished academic positions, including the Kenzo Tange Chair at Harvard and the Louis Kahn Chair at Yale, as well as their role as curators of the 2018 Venice Biennale.



Professor Elizabeth Loftus

Professor Elizabeth Loftus is the undisputed world leader in the field of false memory and eyewitness testimony. Her key research insights include the recognition that human memory is malleable and suggestible; that false memories of childhood events can be easily implanted; and that that leading questions can have a dramatic effect on the memory and testimony of eyewitnesses. Her work has revolutionised both academic investigations of memory and legal procedure for eyewitness testimony.



Professor Frank McGuinness

Frank Mc Guinness has combined a career in academia with a vocation as a writer. He joined UCD in 1997 as lecturer in English and creative writing. He has traversed topics as diverse as the life of Caravaggio, the Lebanese hostage crisis, Shakespeare in Ireland, the Gunpowder plot and the lives of Lizzie and Mary Burns, the Irish consorts of Engels and Marx in Manchester. He is known to most as a playwright and poet but he has also written film scripts, TV scripts, and libretti as well as a stage musical, *Donegal*. In recent years he has turned to fiction and written two novels and one collection of short stories. Song and adaptation are the enduring threads running through his body of work



Dr Douglas R Lowy

Dr Douglas R Lowy, whose research on the molecular biology of viruses led to the development of the HPV vaccine. Chief of the Laboratory of Cellular Oncology and Deputy Director at the United States' National Cancer Institute, his research was undertaken in collaboration with his colleague Dr John Schiller.



Dr Michael Somers

Dr Michael Somers is widely considered to be one of the most influential public servants of his generation, for his work in managing the public finances of Ireland through good times and bad, and especially for helping the country to navigate its way through the global financial crisis of the past decade.

APPOINTMENTS AND PROMOTIONS

Appointments

Full Professor

Professor Aoife Ahern College of Engineering and Architecture

Professor Desmond Tobin UCD School of Medicine

Professor

Professor Eugenia Siapera UCD School of Information and Communication Studies



Promotions

Full Professor

Professor Lorraine Brennan School of Agriculture and Food Science

Professor Eoin Carolan School of Law

Professor Stephen Daly School of Earth Sciences

Professor David MacHugh School of Agriculture and Food Science

Professor Brian O'Connor School of Philosophy

Professor Kevin O'Connor School of Biomolecular and Biomedical Science

Professor

Professor Jessica Bramham School of Psychology

Professor Marie Clarke School of Education

Professor Enda Cummins School of Biosystems and Food Engineering

Professor Emmeline Hill School of Agriculture and Food Science

Professor Amanda McCann School of Medicine

RETIREMENTS

UCD Academic Affairs

Access and Lifelong Learning

Anthony Kinane

Anthony joined the Adult Education Office in December 1997. His interest in IT systems resulted in him leading the migration of Adult Education towards an automated enrolment programme. He became part of the larger Access and Lifelong Learning team, supporting their part-time activities and Adult Education tutors. Throughout his time in UCD Anthony displayed empathy, compassion and commitment to lifelong learning. On his retirement, one of the Lifelong Learning tutors summarised Anthony as "a central presence in Adult Education, unfailingly friendly and efficient". His interest in current affairs and reading prompted his interest in lifelong learning and his legacy continues with both students and staff continuing to enquire after him and wish him well in his retirement.

Library

Susan Matthews

Susan joined UCD Library in 2006. She worked with Client Services in the James Joyce Library and in both the Veterinary Medicine and Graduate Business School Libraries during her career. Susan worked primarily in the evening and at weekends, providing guidance and assistance to all library users. She combined great efficiency with kindness and empathy and was greatly appreciated by all those who worked with her. Susan retired in March 2019.

Carmel O'Sullivan

Carmel joined UCD in 1999 after serving initially in the public library sector, and then in DCU for 18 years. She joined UCD as Associate Librarian for Information and Resources, bringing her passion for placing library users at the centre of library services and orienting staff toward more direct engagement with faculty. She also served as Co-Director of UCD Library, along with Associate Librarian Marie Burke, during recruitment of a new University Librarian.

Between 2010 and 2012, Carmel played a significant role in guiding the Library through reorganisation. Her remit expanded to include oversight of the Library collection function, including Special Collections and UCD Archives, supervision of administrative staff, and managing the Library professional development portfolio.

Carmel contributed enormously to UCD through committee memberships, particularly through her service the Academic Council Committee on Quality. Her contributions to librarianship as a profession in Ireland are innumerable: she served on the Library Council, leading the project team on National Policy on Libraries and Information Services; she was active in the Academic and National Library Training Co-operative sponsoring professional training for the Irish research libraries sector, and helped establish the highly successful Annual Conference of the Council of National and University Libraries.

In addition to her distinguished professional achievement, Carmel has been known at UCD and throughout the Irish library sector for her kindness and humanity, and her support for staff and their career development.

Patricia Williams

Patricia joined UCD Library in January 2014. She worked with Client Services in the James Joyce Library, supporting and advising users with patience and calmness. She has a wonderful sense of humour and this ensured she was a favourite with Library users and her colleagues. Patricia retired in March 2019.

UCD College of Arts and Humanities

School of Irish, Celtic Studies and Folklore

Professor Máire Ní Annracháin

On her retirement from UCD School of Irish. Celtic Studies and Folklore, Máire had been Professor of Modern Irish in UCD since 2009, before which she lectured for many years at Maynooth University. Her main academic interests are literary theory and modern literature in Irish and Scottish Gaelic. Her PhD thesis was on the poetry of Sorley McLean, published as Aisling agus Tóir: an Slánú i bhfilíocht Shomhairle MhicGill-Eain. She has written more than fifty academic articles and has edited academic publications in collaboration with colleagues from Ireland and Scotland. Her most recent articles relate to the resilience of the Gaelic literary tradition and to figurative language in Irish and Scottish Gaelic poetry. Her research has been supported by fellowships from Ireland, Scotland and England; she has spent periods of research in Paris, Edinburgh, the Isle of Skye and London. She spent a number of years as Chair of Glór na nGael, on the board of governors of Sabhal Mòr Ostaig in Scotland and on the Irish Placenames Commission.

UCD School of History

Eamon O'Flaherty

A graduate of UCD, Eamon was a visiting fellow and PhD graduate of Cambridge University, returning to the UCD School of History as a lecturer in the 1980s. His research interests included early modern European history; seventeenth and eighteenth-century French intellectual history; social history of ideas; and eighteenth-century Irish history. Throughout his years in UCD, he taught many undergraduate and graduate modules, as well as supervising numerous undergraduate and postgraduate student dissertations.

Eamon published numerous works over his academic career, including his translation of Michel Vovelle's *Ideologies and Mentalities* and the wellreceived publication on his native town, *Limerick: Historic Irish Towns Atlas* (2010), described as 'the most important publication on the city's history since 1866'.

Eamon also presented papers at numerous events and conferences during his academic career on a wide range of topics from 'Commemorating Clontarf: 1014 through the Ages', eighteenth-century Ireland and Limerick, town planning and its development in the age of Enlightenment, popular culture and its historians, to the 1911 census and the MPM.

UCD College of Business

Liz Knight

Liz retired in May 2019 following her successful 30-year career in UCD. Having joined in October 1989, her first role was in the UCD College of Business Marketing



Department based in Belfield, before moving to UCD Michael Smurfit Graduate Business School in Blackrock in 1991. Here, Liz worked in programme administration supporting the MBS Programme until she relocated to Management House in 1996. She worked for several years on overseas programmes and subsequently, the MBA Programme in addition to the suite of Management Development Programmes. In 2005, she transferred to support the Dean of the Smurfit School at the time (Professor Damien McLoughlin) in an operational capacity and remained there until 2007 when she then took up her role as Programme Manager within UCD Smurfit Executive Development.

During her time in Executive Development, Liz worked on almost every executive programme from accredited Professional Diploma Programmes to custom-designed programmes on behalf of a wide range of clients including An Garda Síochana, GAA and Department of An Taoiseach. However, most notable is that Liz managed every intake of the successful Professional Diploma in Corporate Governance since its inception which involved over 350 executive participants. Liz will be remembered fondly for her absolute dedication to each and every one of her students, as well as being a wonderful colleague to work with. Her colleagues wish her every happiness and good health in her retirement.

Dr Jackie Sinclair

Jackie joined UCD in 1996. Her areas of teaching and research expertise were in workplace unionism, gender and public sector employment relations. Prior to her arrival, equality, diversity and inclusion were not taught in the business school. She pioneered its teaching both at undergraduate and particularly at MSc level.

Jackie completed her undergraduate studies in politics as a mature student at Warwick University having been a trade union activist for many years. She then undertook an MA in Industrial Relations again at Warwick. She excelled, gaining a distinction. Having taught and researched public sector employment relations and gender studies in the UK for a few years she came to Ireland, obtained a lectureship at UCD and undertook a PhD in NUI Galway. Jackie was an exceptional colleague, conscientious in her work and dealings with students. She was also great fun and she will be dearly missed by all her colleagues.

UCD College of Engineering and Architecture

School of Electrical and Electronic Engineering

Rick Watson

Rick pioneered the teaching of wind energy in UCD. After graduating as an electrical engineer, he initially worked on automation and building services in the Department of Posts and Telegraphs. He later moved to the Electricity Supply Board where he worked both on power station design and in the emerging area of wind power. He joined the University of Bremen in 1984 as a research engineer working on wind turbine electrics. He brought that expertise to UCD as a lecturer in Power Systems in 1988. His passion for renewable electrical energy has inspired electrical and mechanical engineering students for over thirty years.

School of Chemical and Bioprocess Engineering

Brian Turner

Brian was a vastly knowledgeable and experienced IT technician and certified Red-Hat Linux engineer, with many decades of sterling experience in Windows and Unix computing systems, from hardware to operating systems and application software. Generous with his knowledge, experience, advice and time, he was dedicated and unstinting, serving long hours with patience, perseverance and good humour. Widely admired and liked, he contributed to a culture of technical excellence in the department.



School of Mechanical and Materials Engineering

John Moran

John joined UCD in 1971 as a technician working with Jarlath Mullen in the Mechanical Engineering Department, he was initially involved in the Mechanics of Materials and particularly in Materials Testing. Over time John, having a keen interest in design, progressed into the Design Office where he ran the Design Labs in Engineering Drawing and various Engineering CAD/ CAM packages. John also had a keen interest in IT and dedicated a lot of his time to keeping the many computers and software packages in working order for the grateful undergraduates, postgraduates and post docs using the Design Lab. He was also very interested in education and achieved a First Class Honours, Masters in Education and continued for three years towards a PhD in Education. John has always been very popular with the students, faculty and staff, always ready to listen or to lend a helping hand when asked. He would often be seen, late in the evening, still in the building working away. John retired in 2019 after 48 years' service and will be greatly missed by faculty, staff and students alike.

Martine Kisielewicz

Martine retired from the Office for the Schools of Mechanical & Materials Engineering and Electrical & Electronic Engineering in September 2018, having joined UCD in 2003. Prior to joining UCD, Martine had worked for the CIO of the Elan Corporation, and in various positions in South Africa, including at the University of Witwatersrand. Martine started in Registry (Admissions) but quickly relocated to the Department of Mechanical Engineering, where she worked closely with the Director of the MIE executive education programme. She provided impeccable support for all undergraduate and taught postgraduate programmes across UCD's two largest engineering schools and helped ensure the smooth accreditation of our associated BE and ME programmes. She was a dependable and trusted colleague, who always knew how best to ensure the smooth running of two complex schools. Her love of nature was legendary, and she always had time to feed the UCD swans. While she is very much missed, her colleagues wish Martine and her husband a long and happy retirement.

School of Architecture, Planning and Environmental Policy

Vivienne Brophy

Having qualified as an architectural technologist and then as an architect, Vivienne spent time in private practice before joining the Energy Research Group in UCD in 1994. Led by Professor J Owen Lewis, the ERG was at the forefront of research and consultation about energy use in the built environment, attracting significant European funding and producing publications which have had a lasting impact and continuing relevance. She completed her research masters in Sustainable Design in 2005 and subsequently became a lecturer in the School, specialising in building technology and sustainability. She also served as Director of the ERG, working with a range of agencies and industry partners on demonstration projects and studies. More recently, Vivienne served as Deputy Head of School, with a particular interest in managing space and resources. In this role she was instrumental both in the strategic planning and the day-to-day running of an increasingly complex School. She also contributed significantly at College and University level on strategies for sustainable future development.

Professor Sheila O'Donnell

Sheila graduated from UCD Architecture in 1976 and subsequently earned an MA from the RCA in London in 1980. She joined UCD as studio lecturer in 1981 and taught continuously in the School since then. She taught design at every level of the programme and was instrumental in a series of revisions and redevelopments of the five-year course, especially the introduction of the Master of Architecture in 2010. She was promoted to Full Professor in 2016. As founding partner of O'Donnell & Tuomey, Sheila has operated at the forefront of architectural practice throughout her long involvement with UCD. She is the recipient of numerous awards and honours, most notably the RIBA Gold Medal in 2015, awarded in recognition of a body of built work which includes landmark buildings such as the Glucksman Gallery UCC, the Lyric Theatre in Belfast, the Saw Swee Hock Student Centre for the LSE in London and the Central European University in Budapest. Other awards include the RIBA Woman Architect of the Year in 2019, in recognition not only of her own achievements but also of her work to raise the profile of women in the profession and the construction industry. Sheila is an Honorary Member of the American Academy of Arts and Letters, a fellow of the RIAI, the RIBA, the AIA and a member of Aosdána. She has served as external examiner in Cambridge, Manchester, Glasgow and the AA in London and continues to lecture and teach at universities around the world.

Professor John Tuomey

John graduated from UCD in 1977 and worked in London and with the OPW before establishing a practice with Professor Sheila O'Donnell in 1988. He began teaching in UCD as a studio lecturer in 1981 and was appointed as inaugural Professor of Architectural Design in 2008. In this role he led design teaching in the school, restructuring and reinvigorating the programme through an ambitious series of initiatives and reforms. John has had a profound influence on



architecture through his teaching, practice and his writing, notably the 2004 publication of Architecture, Craft and Culture - based on his Research Masters, which continues to be on reading lists worldwide. Along with Sheila, he was a recipient of the 2015 RIBA Gold Medal and of the American Academy of Arts and Letters Brunner prize the same year. A Fellow of the RIAI, RIBA and AIA, he is also a member of Aosdána. His practice has been responsible for a series of seminal and influential projects - these include, in addition to those listed above, the Irish Film Centre in Temple Bar, the RMDS School in Ranelagh, the Gaeláras in Derry. These buildings have garnered numerous awards including the AAI Downes Medal and the RIAI Gold Medal. The practice has exhibited multiple times at the Venice Biennale, in 2004, 2008, 2012 and 2018. John has been Visiting Critic at Harvard and Princeton and external examiner at the AA, Cambridge, Ghent and RMIT and continues to lecture and teach at universities around the world

UCD College of Health and Agricultural Sciences

Conway Institute

John Ralph

John retired from the UCD Conway Institute after 47 years of dedicated service to the University. He started in UCD in the early 1970s in the Pharmacology Department where he worked until 2003, when he moved with colleagues from Biochemistry and other units to the newly opened UCD Conway Institute.

This phase of John's career, as Purchasing and Stores Manager, was pivotal to the early success of UCD Conway Institute. The Institute had upwards of 450 staff and researchers from a number of departments and units. Together with Annette Wallace, Dereck McCullagh and Luke Millington, John succeeded in moving the many varied paperbased procurement systems to a unified bespoke software solution namely Labstore. This purchasing and requisitioning solution proved vital to the early success of the Institute allowing researchers to focus on their research projects.

John is an extremely talented musician who has generously contributed greatly to the social aspect of university life over the past 47 years; from the early days of the Department of Pharmacology, where there are fond memories of his performances with the late Roddy Monks, to more recent times at Conway events, which came to life once John took out his trusted banjo.

National Virus Reference Laboratory

Eileen Lynch

Eileen has been a loyal and dedicated work colleague who, from 1983 onwards, helped to establish and then expertly managed the Specimen Reception laboratory, the veritable hub of the NVRL. She had an incredible facility to remember names and details of the hundreds of patient samples which passed daily under her watchful care. In an often hectic work environment her thoroughness and multitasking were a marvel! Her real strengths were with people. She liaised daily with any number of us within the NVRL and within clinical settings throughout the country. She knew all by name and all knew her. Every new recruit came under her watchful care and she helped them all to navigate their way. Most especially, Eileen was always cognisant of the people who rely on us for our work. She was a consummate professional and a natural and she will be a hard act to follow.

"And who will deck our halls with boughs of holly this Christmas? Mother, mentor, crisis manager and averter, dear colleague and friend, enthusiastic mischief-maker, conqueror of multiple mountain peaks and countless charity cycles, bean uasal and proud Kerry woman -Eileen, we'll miss your style and your smile! We are privileged to have worked with you and we wish you and your family every blessing for the future."

School of Agriculture and Food Science

Peter J Caplan

Peter joined UCD as a mass spectroscopist in May 1980 when UCD acquired the first high resolution mass spectrometer in Ireland. For many years this was the only high resolution mass spectrometry instrument in the country and Peter ran a mass spectroscopy service for many researchers in UCD and outside, in conjunction with his great friend and former colleague the late Dr Denis Cronin. The instrument was one of the first to need high powered computing which required Peter to have a high level of skill and expertise in computers. This greatly benefitted computing in Agriculture as Peter established and maintained a very successful and reliable network within the Faculty from the mid-1980s. Even after network facilities became centralised within UCD, Peter continued to play a central role in the set-up and maintenance of computing systems for a large number of sections and staff within the School of Agriculture and Food Science up to his recent retirement. Outside UCD, Peter is a longstanding member of the Dublin Scientific Club and is an avid and master bridge player.

Jeanette Purvis

Jeanette's connection with UCD spans some forty years. In the late 1970s she was a secretary in the Department of Agricultural Chemistry in the Faculty of General Agriculture then located in Albert College, Glasnevin. Following her marriage to Gordon Purvis, who had been a postgraduate student in Albert College, they moved to England for some years. There Jeanette worked as an administrator in Nottingham University and as a school matron. Having returned to Ireland in 1986, Jeanette resumed her connection with UCD in 2001. She was appointed as a Senior Executive Assistant in the Department of Environmental Resource Management. While the Faculty became a School, the Department a Section and the curriculum became modularised, Jeanette embraced all the changes with diligence and good humour. For faculty, staff and students, both undergraduates and postgraduates, she became a 'go to' person in the Section, dispensing wisdom, ensuring deadlines and offering a listening ear. For many years the Common Room in the School of Agriculture and

Food Science was run by Jeanette and she took particular care to organise the annual Christmas Coffee morning. The 2018 event was her swansong as Jeanette retired from UCD at Christmas last year.

Dr Gordon Purvis

Gordon, Associate Professor in Entomology and Pest Ecology in the School of Agriculture and Food Science retired from UCD in September 2018. A native of Northumberland, he studied Agricultural Zoology at the University of Newcastle-upon-Tyne and in 1979 completed a PhD in Agricultural Zoology in UCD. Following appointments at the University of Nottingham School of Agriculture and ADAS, UK Ministry of Agriculture, Gordon joined the Faculty of Agriculture in 1986. His research spanned classical entomology— the carabid beetle, to applied entomology - the impact of farming on the biological diversity of the wider landscape. He co-ordinated several international multiagency research programmes such as AgBiota and AgriBaseline. Under his tutelage agriculture students learned to differentiate insects, spiders and mites, traditional and alternative methods of pest control, with a focus on Integrated Pest Management and the use of bio-indicators.

He undertook many administrative roles including Head of Section and Programme co-ordinator. Gordon was always generous with his time and expertise in the support of undergraduate and postgraduate students and colleagues.

School of Nursing, Midwifery and Health Systems

Bernadette Manley

Bernadette joined UCD in 1980, first taking a role in the Registrar's office working with Professor Maurice Kennedy. Various roles followed including time working in the Department of Accounting and finally in 1994 Bernadette joined the Department of Nursing Studies which was in the Faculty of Medicine, located in Earlsfort Terrace. Bernadette stayed with the School of Nursing, Midwifery and Health Systems until her retirement in August 2019. Throughout her time in UCD, Bernadette's colleagues have described her as collegial, professional and a great friend!

Dr Mary T McGrath

Mary came to the School in 2003, when the first BSc in Nursing degree programmes were introduced. As a former intensive care nurse and a nurse tutor at the School of Nursing at the Mater Misericordiae University Hospital, Mary brought a rich background of clinical and teaching experience to the School's undergraduate General Nursing programme. She completed a PhD at the University of Warwick in 2014 on the topic of nurses' experiences and challenges of caring in the technological environment of intensive care. Mary was a valued member of faculty, was very highly regarded by her students, and gave unfailing service to the School and the University.

Anne Waters

Anne retired from UCD in the Summer of 2018. She had worked with the School of Nursing, Midwifery and Health Systems since she first joined in UCD in 2007 as an administrator in the Graduate School Office. Anne was very involved with the Graduate Diploma Cancer Nursing programme and a vital part of the graduate team.

School of Veterinary Medicine

Margot Coady

Margot commenced her career in UCD in 1979 as a member of the technical staff in the Department of Veterinary Anatomy and Histology in the then Faculty of Veterinary Medicine. She was promoted to senior technician grade in 1984 while continuing to work in the same department. She spent her entire career working in the histology laboratory both at the Veterinary College Ballsbridge and later in the School of Veterinary Medicine in Belfield. Margot's duties included the preparation of histological samples for both teaching and research purposes.

Margot was always a wonderful presence in the histology lab. Her many years of experience and meticulous approach was reflected in the vast amount of work she carried out for numerous research groups across the School. She had amazing attention to detail, which not only extended to her work but could be seen in the many conversations she had with her co-workers and friends. She listened attentively to everyone she encountered and always had a wise word of advice for all, staff and students alike. Margot was highly experienced, organised and efficient when it came to her work and every slide was prepared to the highest of standards. Margot retired after almost 40 years of service to UCD.

Maureen McCullough

Maureen worked throughout her career in veterinary haematology. She worked in an equine veterinary laboratory in South Africa before commencing work in the Veterinary College in the early 1980s. The Faculty was then based in Ballsbridge, moving to its present site in 2002. Maureen was involved in the teaching and tuition of veterinary and veterinary nursing students over many decades. Her friendly, 'can-do' attitude made her very popular with faculty, staff and students alike. Maureen had an extremely conscientious and dedicated attitude to her work, often staying late to make sure important patient results were delivered.

Paul Stanley

Paul joined the UCD Faculty of Veterinary Medicine in 1973 as a trainee technician in the Department of Physiology and Biochemistry in Ballsbridge. He was involved in student practicals and this was a feature in different forms throughout his career.

In 1985 Paul transferred on promotion to Senior Technician to the Farm Animal Clinical Studies department, under John Hannan, becoming involved in the Clinical Reproduction section, working with Larry Keenan and Lindy Vaughan, and he took on the maintenance of computer records for the dairy herds that worked with the department, in a time when such computer programmes were in their infancy. He has always been interested in mathematics and did some further studies in statistics, and developed his computer skills throughout his career, becoming the go to 'first responder' for any computer problems. He was always happy to assist colleagues both within and outside his department. Paul has always been adaptable, learning new skills when required.

Many postgraduate students owe him a debt of gratitude for the assistance and patient support that he



gave them while they were studying and particularly when writing up. Paul also served as the union rep for the technical staff for many years.

The School thanks Paul for his contribution over the years and wishes him well for a happy and fulfilling retirement.

Sheila Worrall

Sheila worked throughout her career in veterinary pathology starting in the Veterinary College in Ballsbridge in the late 1970s. She worked with several professors, firstly Professor Cunningham, then Professor Sheahan and finally with Professor Callanan. She was technically very skilled and was involved in the teaching of veterinary undergraduates and postgraduates over many decades. In addition, she completed a successful programme of research resulting in a masters degree (2011, Interferon-gamma and tumour necrosis factor-alpha expression in the placenta of sheep experimentally infected with Chlamydophila abortus or Toxoplasma gondii). During her career, Sheila was promoted to the Chief Technical Officer grade.

UCD College of Science

School of Biology and Environmental Science

Professor Thomas Bolger

Tom was appointed lecturer in the Zoology Department at UCD in 1981 but his connections with UCD go back to his undergraduate days when he studied Science here. Tom spent a year (1997-98) in the USA as a Fulbright Scholar and was appointed Professor of Zoology (and Head of Department) in 2003. Following the establishment of the School of Biology and Environmental Science in 2005, Tom became its first Head, a position he filled for two terms. Tom's primary research interests are in the effects of global change on terrestrial biodiversity and nutrient dynamics in soil systems. His contribution to the field is evidenced by the number of papers (>200) he has published, his impressive network of international collaborators and the fact that his research was funded by many funding agencies, including the EU. Tom was a passionate educator and dedicated mentor to numerous undergraduates, MSc and PhD students. He also made significant contributions at College and University level, chairing many committees and as Director of UCD's Access Programme to science, engineering and agriculture. Tom will be greatly missed by his colleagues in the School, College and across the University and his colleagues wish him a long, healthy and productive retirement.

Brian Fagan

Brian began his UCD career in 1972 in the Faculty of Agriculture when it was located in Albert College, Glasnevin. Initially he worked with Dr Enda Bannon preparing and setting out his practical classes. Brian's area of expertise was plant pathology and over the years he was the person in the know for a wide variety of plant diseases including potato, cereal, brassicas and forestry diseases. He was one of the original members of the Faculty of Agriculture when it relocated to Belfield in 1979. Whilst in Belfield worked with Dr Kevin Clancy, Dr Mike Cooke and Professor Fiona Doohan among others running their practical classes and assisting in their research. In 2005 he moved with Professor Doohan to the newly formed School of Biology and Environmental Science where he remained until he retired. Over the many years he worked in UCD he has helped a multitude of PhD, masters and fourth-year students with their research projects. His kind manner, quick wit and ready smile made him a cornerstone of every group he was involved with and his colleagues wish him all the very best for his future endeavours.

School of Biomolecular and Biomedical Science

Professor Gethin McBean

Gethin has retired from UCD School of Biomolecular and Biomedical Science (SBBS). She obtained her primary degree in biochemistry from TCD and her PhD in Pharmacology from the University of Southampton. Following a postdoctoral fellowship in the University of Southampton, she returned to Ireland in 1986 to take up a postdoctoral fellowship in the Department of Biochemistry, TCD. She was appointed lecturer in the Department of Biochemistry, UCD in 1990, at that time based in Merville House. The Department of Biochemistry merged with the Departments of Industrial Microbiology and Pharmacology in 2005 to form the UCD School of Biomolecular and Biomedical Science. Gethin was Head of Biochemistry (2005-2006), and Head of Teaching and Learning (2006-2007) in the newly formed School and in 2007 was appointed Head of SBBS, a role which she retained until 2013. In 2017 she was promoted to professor. From 2003, Gethin worked in the Conway Institute of Biomolecular and Biomedical Science as Principal Investigator (2003 to 2008), and as Conway Fellow (2008 to 2019). Her research focused on understanding mechanisms of neuroprotection and the prevention of oxidative stress in the brain with a particular interest in the role played by sulphur-containing amino acids in thiol redox balance and antioxidant defence mechanisms in astrocytes and microglial cells.

Joe O'Neill

Joe retired from his position as Chief Technical Officer in the School after 53 years of service to UCD. He began working in UCD in 1965, initially as a laboratory attendant in the Department of Industrial Microbiology in Ardmore House. He continued his studies during his time in UCD and was ultimately promoted to Chief Technical Officer. As electronics and mechanical technician, he provided invaluable support to faculty, staff, students and research groups in Ardmore House and more recently when the School moved to the O'Brien Centre for Science. At all times he was most generous in sharing his knowledge and expertise and there seemed to be nothing that Joe could not fix, repair or build. The School wishes Joe well in his retirement.

School of Chemistry

James Gerard Flynn

Gerry Flynn joined the School of Chemistry as a technician in 1975 and stayed with us for 43 years. He worked in the research laboratories for many years and contributed to the research of several faculty in Physical Chemistry before moving to the Chemistry Stores. Gerry was an extremely conscientious colleague and always gave his best. He was unfailingly kind and courteous to faculty, staff and students alike, and took a genuine interest in the people he met and worked with. He was an inveterate fundraiser, constantly finding ways to support good causes, and he raised very substantial sums for charity over the years. UCD Volunteers Overseas was his favourite charity and it is typical of the man that he asked that contributions made on his retirement be donated to UCD VO. His colleagues salute their friend and colleague and wish him well in his retirement.

School of Computer Science

Associate Professor Arthur Cater

Arthur has been a Lecturer (Associate Professor) in UCD School of Computer Science since 1980. He was one of the very first researchers in the field of Artificial Intelligence in Ireland. He was a founder member of the Artificial Intelligence Association of Ireland (AIAI) in 1988 and also a founder member of the Irish Research Scientists Association. In UCD Computer Science, Arthur has taught courses on a number of topics in Artificial Intelligence and Theoretical Computer Science including Compiler Construction and AI for Games and Puzzles. Recently he has been Director of Research Postgraduates and Chair of the Plagiarism Committee in the School.

Peter Fitzpatrick

Peter has over 30 years' experience in developing both product and service based businesses mainly in Software and in Life Sciences. He received a BSc from Trinity College and has worked in both large organisations and a number of start-up companies on an international basis. He has worked on system developments for a number of companies including Eircom, Aer Lingus, Diageo, Logica, Sentaca Communications, Aryzta, AePona/Intel, Altion and Data Mobillity Systems. He joined Insight in 2015 at a very critical stage in the Centre's development. He helped develop numerous processes which assisted Investigators to interact more productively with industry. Peter was an excellent networker and introduced Insight to numerous companies and helped to shepherd many a contract through challenging negotiations. Of particular note was his work in securing the Samsung contract worth over €4 million (including €2.6 million in cash) which is the largest contract landed by any of the Insight sites and one of the largest signed by UCD. Peter was a valued colleague and friend and his eclectic interests in astronomy, gardening, philosophy and travel made him an excellent conversationalist and his colleagues are sure that these interests will serve him well in retirement.

School of Mathematics and Statistics

Rhona Preston

Rhona gave excellent service to the School of Mathematics and Statistics for over a decade. Her administrative services and helpfulness were invaluable to the School and its students. Her colleagues wish her the best for her retirement.

School of Physics

Professor Gerard O'Sullivan

After more than 33 years in the School of Physics at UCD, Gerry retired in September 2019. He received his undergraduate degree at UCD in 1975 and his PhD in 1980 entitled 'A Spectroscopic Study of Laser Produced Plasmas of the Rare Earths and Related Elements'. He joined UCD on 1 October 1986 as a permanent college lecturer, and was promoted to associate professor in June 1999, and to professor in July 2006. Gerry served as Head of School from 2002 to 2008. His career as a teaching and researching academic is outstanding, supervising over 50 graduate students and publishing over 200 scientific articles. He engaged in many international collaborations, especially in Japan, China, Sweden and the USA. He is a world-renowned researcher in the field of spectroscopy of plasmas, with pioneering work in the extreme ultraviolet and soft x-ray ranges, which has important applications in photolithography source development for modern semiconductor manufacturing.

UCD College of Social Sciences and Law

School of Philosophy

Margaret Brady

Margaret joined what was then the Department of Philosophy in 2001. Over her 17 years there she undertook a wide range of administrative roles, concluding with School Manager. During times of change Margaret played notably important parts in both establishing new practices within the School and, with exceptional kindness and commitment, helping students. In 2018 she took early retirement. The School was nevertheless honoured that Margaret had chosen to spend her entire UCD career in Philosophy and has their very best wishes for her latest endeavours.

UCD Estate Services

Commercial, Residential and Hospitality

June O'Connor

June finished working in UCD in April of this year after 15 years of service. She started in UCD in 2004, initially helping to run the day-to-day operations in Glenomena and Proby residences, before moving over to the central office to help manage the off-campus residence support office, providing essential support and information to students looking for off-campus accommodation. June worked closely with the team to help improve the way in which students could access the private rental market through initiatives such as the UCD AccommodationPad, an online portal for local residents and landlords offering accommodation to UCD students.

More recently June took over the running of the University's on-campus residences booking system and worked closely with colleagues across many University departments on room allocations, bookings and student residential support. Her work brought her into contact with students, faculty, staff, parents and the wider community who will no doubt all miss her greatly whilst she enjoys her retirement in sunny Florida.

Copi-Print

Catherine Murphy

Catherine was a valued member of the Copi-Print team. She joined UCD in 2003 was employed as an assistant in the bureau in the John Henry Newman Building. She was very popular with both students and staff due to her bubbly personality and infectious humour. Catherine's positive attitude and hard work has proved invaluable to the University over many years.

UCD Finance

Helen Miller

Helen retired from the Bursar's Office in October 2018 after 31 years of dedicated service to the University. She started her career in UCD in 1987 as management accountant with responsibility for the preparation of the annual University budget and developing a financial internal resource allocation model.

She was later promoted to the role of Head of the Financial Planning and Resources Unit, whose principal activities are financial planning and the provision of management information to support the University Management Team in the overall allocation of financial resources to the UCD schools and support units.

Helen is a talented badminton player and has always contributed generously to activities on the campus. She was highly respected among the university community and a person who was fully committed to her work in UCD.

UCD Foundation

Sylvia Roddie

Sylvia joined the Development and Alumni Relations Office following her position as personal assistant to the Bursar at the time, Eamonn Ceannt. In June 2019, Sylvia took early retirement from UCD to pursue her many interests including gardening and hill-walking. Sylvia was the face of UCD Foundation for years and saw the department through a variety of changes and developments. Sylvia was an invaluable member of the team and relied on by so many. Sylvia gave 100% to all she did and her colleagues wish her every joy and success in her retirement.

UCD Human Resources

Anne Gray

Anne retired early in September 2018, following an 18-year career during which she undertook roles in UCD HR for the most part, but she also worked for 4 ½ years in UCD School of Sociology. On retirement Anne was Promotions and Grading Manager and in her time in this role she was instrumental in the development and implementation of the rolling Faculty Promotions Process, and the Job Families Framework for Professional and Administrative roles. Both of these were significant new undertakings for her and her team and Anne's commitment to both was exemplary.

Throughout her career in UCD Anne was known for consummate professionalism, flexibility, determination, collegiality and good humour, and her contributions within the HR function in particular were immensely valuable. Although greatly missed, Anne now has more time to enjoy other aspects of UCD, such as participating in the Choir.

Niamh O'Donoghue

Niamh retired early in September 2018 after 11 years. She joined UCD in 2007 as Leadership Development Manager at a time of growth for the University. Over these 11 years she was responsible for the design and delivery, with her team, of the Leadership and People Manager programmes, as well as our general professional development programmes.

Niamh was also, with her team and with colleagues in UCD Research and UCD Careers, instrumental in the development of the very successful Researcher Development Framework for Postdocs. During her time in UCD her role evolved and took a broader remit of People and Organisation Development, drawing on her expertise in the area and of how people and systems work. She was an experienced practitioner and a highly qualified and excellent coach and there are many individuals and teams across UCD who benefited directly from her work with them. Before leaving Niamh led another successful Leadership and Management Development Programme which began in 2017 and was attended by UMT and all members of the Extended Leadership Group.





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