



University College Dublin  
Ireland's Global University

# REPORT OF THE PRESIDENT

SEPTEMBER 2019  
– AUGUST 2020



## REPORT OF THE PRESIDENT

University College Dublin  
National University of Ireland, Dublin

September 2019 – August 2020

For presentation to the Governing Authority of  
University College Dublin, National University  
of Ireland, Dublin at its meeting on  
10 December 2020.

ISBN: 978-1-910963-47-0

# CONTENTS

**002**

---

Overview by the President

---

**010**

---

University Response to COVID-19

---

**019**

---

UCD by Numbers

---

**024**

---

Education

---

**036**

---

Research, Innovation and Impact

---

**060**

---

Global Engagement

---

**064**

---

Equality, Diversity and Inclusion

---

**069**

---

Finance and Capital Development

---

**078**

---

Human Resources, SIRC and Legal Affairs

---

**082**

---

College of Arts and Humanities

---

**086**

---

College of Business

---

**090**

---

College of Engineering and Architecture

---

**094**

---

College of Health and Agricultural Sciences

---

**098**

---

College of Science

---

**102**

---

College of Social Sciences and Law

---

**106**

---

University Awards

---

**113**

---

Appointments

---

**114**

---

Retirements

---

# OVERVIEW BY THE PRESIDENT



I am pleased to present my seventh report as President of University College Dublin. This report highlights the many successes and achievements across the University this year.

This was a year which did not follow any plan or turn out the way anyone expected. I am extraordinarily proud of the UCD Community and how we have managed the impact of the COVID-19 pandemic. Some detail around how we responded to the challenges is outlined in the next chapter of this report, and you will see evidence of our contribution to the overall effort throughout each chapter. This response, alongside our day-to-day activities, helps us to continue to build our reputation as Ireland's largest and most global university.

## Rising to the Future

Following the extensive collaborative process undertaken to devise UCD's Strategy for 2020-2024, together with Marie O'Connor, Chair of the Governing Authority and Mary Mitchell O'Connor, Minister for Higher Education, I launched *Rising to the Future* in December in a packed O'Reilly Hall. This far-reaching, thought-provoking strategy has the potential to transform the experience of all members of our community.

Our strategic vision for UCD propels us onwards towards a post-pandemic future, guided by the four themes of Rising to the Future: Creating a Sustainable Global Society; Transforming through Digital Technology; Building a Healthy World; and Empowering Humanity. There will be a steering group for each theme, representative of all sectors of the University community: faculty, staff, students and potentially alumni.

To ensure full coordination and cooperation between the themes, and to ensure that the themes come together, an overarching Strategy Steering Group consisting of the members of UMT together with the four theme Chairs and the Director of Strategic Planning will retain oversight of the various activities and initiatives

emerging from the themes, and will also proactively identify opportunities for action across the themes.

The Governing Authority agreed 12 high-level Key Performance Indicators that will be used to track progress against the four Core Objectives of the Strategy. The GA has also agreed targets for each of those KPIs for the next five years. Progress against the targets and the targets themselves will be reviewed by the GA on at least an annual basis.

I want to thank the wider UCD Community for their collaboration in the process and look forward to working together to see the many strands come to fruition.

## Rankings

UCD tops the Irish universities as the number one ranked university in Ireland in the *US News & World Report's Best Global University Rankings*. This reflects the research publications impact and international collaboration of our faculty. In November, UCD was named as the Sunday Times University of the Year for 2020, the third time we have won this accolade.

For the second year in a row, UCD has seen an improvement in its position in the *QS World University Rankings* with an upward movement of eight places to 177. We are ranked number 1 in Ireland in 15 subjects – up 2 from 13 in 2019, in the *QS World University Rankings by Subject*. We have four subjects in the top 50, 13 in the top 100 and 33 in the top 200.

In 2020, for the third year in a row, UCD was ranked number one in Ireland and in the top 1% of universities globally in the *QS Graduate*

*Employability Rankings.* In awarding this ranking, QS commented that this is by virtue of the work we have done to forge work-placement and research partnerships with employers.

The Executive MBA programme offered by the UCD Michael Smurfit Graduate Business School was ranked among the best in the world, 32nd globally and 15th in Europe, according to the *QS Executive MBA listings*. This is just one of the many accolades for our graduate business education programmes.

These awards are testament to the progress we have seen over the last number of years and is a credit to the whole UCD community.

## Finance

For the 2019/20 year, the University incurred a small deficit on HEA core-funded activities. The loss arose primarily from lower student fee income than expected. We also experienced a significant reduction in commercial income streams, such as student residences, on-campus catering concessions and summer business activities due to the COVID-19 pandemic.

# €122m+

secured by UCD researchers in external research grants in 2019/20

// This was another year in which we remained the university of first choice for domestic undergraduate students, with a 7% increase in first preferences and an 11% increase in domestic taught graduate recruitment //

Since March 2020, the University's ability to generate non-Exchequer sources of income has been adversely impacted, but as a result of healthy cash balances and continued tight cost control, we can sustain operations in the current volatile environment. We are well positioned to recover quickly once the impact of the pandemic subsides.

## Education

This was another year in which we remained the university of first choice for domestic undergraduate students, with a 7% increase in first preferences and an 11% increase in domestic taught graduate recruitment. New academic regulations came into effect in September which is a significant enhancement to our programmes. The regulations will encourage greater flexibility in programmes, and for internships and international exchange within programmes, as well as in assessment and provision of feedback for students.

## Research

UCD researchers secured over €122 million in external research grants in 2019/20. This is now the third year in a row for which



Pictured are the UCD-Intel Scholarship awardees 2019-2020: (l-r) John Barry, Director of Major Strategic Partnerships, UCD; Bernie Capraro, Research Manager, Intel Research and Development Ireland Ltd; Ciaran O'Sullivan; Kallum Doyle; Stephen Sherin; Kyle Flynn; Séan O'Braonain; Ciaran McNamara; Brandon Blacoe; Emily White; Prof Andrew Deeks, UCD President; Eamonn Sinnott, General Manager Intel Ireland; Andrew Donohue; Ruth Quinn; Adam Atouani; Hazal Beceriklican; Janet Tsang; Brijji Mary Joseph; and Chyna de los Angeles.



Pictured are the 2019 UCD Alumni Awardees with the UCD President (l-r): Noelle Walsh, Dr John Bell, Katie Mullan, Prof Andrew J Deeks, Shaun T. Kelly, Dr Barbara Dawson, Prof Mary Horgan, Caroline Keeling and Dr Sinéad Walsh and Alison Priestman, UCD Hockey Ladies Club Captain, surrounded by their peers.

// A global engagement highlight for this year was UCD's establishment of two new joint international colleges in China - Chang'an-Dublin International College of Transportation (CDIC), led by Professor Paul Fanning and the Guangzhou-Dublin International College of Life Sciences and Technology (GDIC) South, led by Professor Alex Evans //

external research grants have exceeded €122 million, a figure that was a record for the University when first reached in 2017/18. A particular highlight of 2019/20 in research funding was EU funding, which was more than double the figure for the previous year, with a number of European Research Council awards and major collaborative projects in important topics such as trust in expertise, obesity and diabetes. This is an important time for EU research funding, with the arrival of the next funding programme Horizon Europe and with changes post-Brexit, and it is important for UCD to establish a strong position.

### Campus Development

Significant progress was made this year to deliver on the vision set out in the UCD Strategic Campus Development Plan 2016-2021-2026. The plan outlines how the Belfield Campus will be developed with three distinct Character Areas: Education, Research and Innovation; Sports and Student Amenities; and Residential. The University has developed three exciting masterplans which present a more detailed vision for the spaces within each Character Area. These masterplans outline how each Character Area will grow and develop over time, and how each will combine to form a coherent and integrated campus designed to provide a student experience that defines international best practice. The plans are informed by the University's strategic themes and will help to deliver an accessible, sustainable, healthy and digitally enabled campus.

### Global Engagement

A global engagement highlight for this year was UCD's establishment of two new joint international colleges in China – Chang'an-Dublin International College of Transportation (CDIC), led by Professor Paul Fanning and the Guangzhou-Dublin International College of Life Sciences and Technology (GDIC) South, led by Professor Alex Evans. UCD's three international colleges in China, including Beijing-Dublin International College (BDIC), CDIC and GDIC now enrol over 1,500 students in addition to a further 2,200 students in other transnational programmes.

### Equality, Diversity and Inclusion

This year, we have worked collaboratively with the other higher education institutions and the HEA to identify the ways in which the pandemic has a disproportionate effect on both employees and students who already experience inequalities. This work has included recognition of the impacts of closure of schools and childcare facilities on those with caring responsibilities and putting the relevant supports in place. Supporting mental health and well-being was a particular priority and a new webpage providing resources and information was developed to support employees. In addition, the Mental Health First Aid Peer Support scheme was launched in April which is a confidential peer support group for employees.

# 2,500

members of the UCD University Club

# 250

care packages for rough sleepers in Dublin's inner city created

## Hospitality

For the first half of this year, as the first its kind in Ireland, the UCD University Club, as an addition to O'Reilly Hall, continued to provide a hub for the faculty, staff, alumni and partners of the University to meet, socialise and entertain in a world-class hospitality facility. Membership numbers during this time continued to grow steadily to 2,500.

As a result of the first lockdown, the University Club and O'Reilly Hall closed their doors in March and remained closed for 20 weeks, reopening on 4 August with all the necessary COVID-19 safety measures in place. The Club remained open providing an essential and safe catering facility and operating under the new government guidelines.

August saw the completion of the capital works projects in UCD O'Reilly Hall with new subdividing walls, new carpet throughout and a state of the art AV installation. The team continues to work closely with our internal community and external partners and have pivoted to the world of virtual and hybrid events.

## Community Engagement

UCD in the Community has continued to connect with community-based organisations, highlighting the mutual engagement taking place around the University and beyond, connecting colleagues and students with the wider community through volunteering and partnerships and facilitating their annual flagship events.

Highlights in 2019/20 include the Volunteer Day in October 2019, a Volunteer Fair attended by many community-based organisations and various workshops across campus from UCDVO, the UCD Careers Network and Special Olympics Ireland, UCD's external Charity of Choice.

International Volunteer Day on 5 December saw the launch of the UCD Community Engagement Report 2018/19. The report celebrates, highlights and records the many contributions of our colleagues, students and alumni, both outside and within the University. The report can be viewed on the UCD in the Community website.

The annual Dublin Simon Community care package appeal took place in late December, in collaboration with Terenure Presentation Community College as part of their Localise programme. Thanks to the generosity of UCD faculty, staff and students, over 250 care

packages of essential items for the rough sleepers of Dublin's inner city were created.

Due to the COVID-19 pandemic, many of the University's community engagement activities were creatively modified and moved online, including Hope Fest, the annual well-being festival for people experiencing homelessness that was due to take place in the Iveagh Gardens in May 2020.

## Major Strategic Partnerships

Building Major Strategic Partnerships is a core objective of our Rising to the Future Strategy and forms an integral part of our vision for 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, PwC, A&L Goodbody and Teagasc.

Before the onset of COVID-19, I was delighted to welcome Eamonn Sinnott, Vice-President, Technology and Manufacturing Group and General Manager, Intel Ireland and his colleagues to UCD. We signed a new Memorandum of Understanding broadening and deepening our strategic partnership. We also awarded 15 outstanding students in science and engineering with UCD-Intel Masters Student Scholarships. Over the next few years, a further 48 students in science and engineering will be supported through the Scholarship



Prof Andrew Deeks, UCD President with Eamonn Sinnott, Vice President and General Manager, Intel Ireland at the signing of an MOU between the University and Intel.

Programme. Our partnership will also see the appointment of an Intel Adjunct Professor and will provide substantial investment in the new UCD Centre for Creativity.

During the year I met with Dr Colin Hunt, AIB Group CEO and his senior colleagues. Together we reviewed our strategic partnership, which has seen significant investment in support of a range of education, research and innovation activities and initiatives, including the establishment of the AIB Chair in Behavioural Economics, support of the UCD Energy Institute, together with research collaboration in Data Analytics and Cybersecurity and a continuing partnership with NovaUCD. We look forward to seeing further development of this outstanding partnership.

I welcomed Julian Yarr, Managing Partner, A&L Goodbody to sign a Strategic Partnership Agreement during the year. This further develops the relationship between A&L Goodbody and UCD over many years, which has seen a close relationship built with the UCD Sutherland School of Law and the UCD College of Business, including the co-development of the Business of Law Masters Programme. The agreement provides the opportunity to build on the many successful aspects of the relationship to date and covers talent development; research, innovation and thought leadership; and corporate social responsibility.

I also met with Professor Gerry Boyle, Director of Teagasc, the Agriculture and Food Development Authority, and his senior colleagues. We agreed to extend the Strategic Partnership between our organisations, which now encompasses collaboration in education & talent development, research & innovation and corporate social responsibility. Over many years UCD and Teagasc have collaborated on a large number of research and education programmes. I note that Teagasc, through its Walsh Scholarships Programme, is amongst the largest supporters of

graduate education at UCD. I look forward to seeing the continuing development of this Strategic Partnership.

The Strategic Partnership between Microsoft and UCD continues to develop. In collaboration with Microsoft in Ireland and in Brussels, UCD has established the Microsoft-UCD Digital Policy Programme to build digital policy capability amongst the public and private sector in Ireland and across the wider EU. Under the direction of Programme Director, Professor Kalpana Shankar, the Digital Policy Programme includes the establishment of new educational programmes, including a Certificate course and a Masters in Digital Policy, as well as the opening of the UCD Centre for Digital Policy under the leadership of Professor Eugenia Siapera. Elizabeth Farries has been appointed Assistant Professor for the programme.

CONSUS, the strategic partnership between UCD and Origin Enterprises continues in the area of future farming systems, supported by SFI. Congratulations to Professor Gregory O’Hare, his team and the team from Origin Enterprises on the successful completion of the mid-term review of the scientific programme. I would like to thank Tom O’Mahony, retiring CEO of Origin Enterprises, for his unstinting support over many years and I would like to wish his successor Seán Coyle every success in his new role.

### Connecting with our Alumni Worldwide

The global network of UCD alumni continues to be one of the University’s greatest strengths, and we now have over 292,000 alumni in 184 countries, with 45 global chapters. 27% of our alumni are overseas, with the majority of these in the USA, Singapore and the UK, with significant numbers in Asia, Australia, Canada and Europe. It has been heartening to see alumni engagement continue to flourish this year despite the restrictions on social gatherings during the COVID-19 pandemic. We rose to the challenge and embraced the transformative power of digital technologies by bringing 95%

## Welcome to this evening’s conversation: “It’s Normal To Be Different”



**Caroline Casey**  
Award-winning social entrepreneur & founder of the Valuable 500



**Martina Fitzgerald**  
Political journalist & author

**UCD**  
in conversation:  
a virtual series



// Our ever-evolving alumni volunteer programme continues to go from strength to strength. To date, over 4,030 alumni have volunteered to support students, fellow alumni and the wider UCD community, including over 350 alumni who have been involved in student recruitment as part of our newly launched Global Ambassador Programme //

of our alumni engagement activity online to maintain a vibrant and meaningful connection with alumni all over the world. With agility and creativity, we pivoted to virtual events and increased our communications and social media engagement, including through the successful #UCDTogether campaign.

We have seen a significant increase in activity with our online communities, including the online UCD Alumni Network, with over 50,000 alumni engagements, 220% increase in traffic on our website and over 356% increase in traffic on our YouTube channel.

Our virtual alumni events have proved immensely popular and have included the UCD: In Conversation series and What It Takes, a career-building series for students and young alumni. We logged over 20,000 interactions with these activities which included alumni of all decades and disciplines with 17% tuning in from overseas.

This year I am proud to report that, despite COVID-19 challenges, the number of interactions overall with our alumni engagement events increased from 35,000 to 41,050.

The UCD Alumni Awards ceremony continues to be one of the highlights of the alumni calendar. At a celebration in UCD O'Reilly Hall in November 2019, we honoured nine outstanding alumni nominated by the UCD community for achievements in the arts, health, science, business, engineering, bioeconomy research, social sciences, sport and law.

The UCD Festival in May 2020 was another highlight of our year, and although campus was closed this year due to COVID-19, our virtual UCD Festival@Home was a huge success. Running over the weekend of 21-23 May, 23,500 people from 58 countries attended 67 online events.

I am proud of the many UCD alumni who are at the forefront of efforts to tackle the COVID-19 crisis worldwide. Their significant contributions are highlighted in the latest edition of our alumni magazine, UCD Connections, along with UCD's research programmes in the areas of COVID-19 and sustainability.

Our ever-evolving alumni volunteer programme continues to go from strength to strength. To date, over 4,030 alumni have volunteered to support students, fellow alumni and the wider UCD community, including over 350 alumni who have been involved in student recruitment as part of our newly launched



Kids Q&A with Dr Tony Holohan on Zoom at the UCD Festival@Home.

# 50,000+

online engagements with the UCD Alumni Network

Global Ambassador Programme. Despite the current restrictions, we have facilitated the safe delivery of our alumni volunteering activities through the online UCD Alumni Network platform, which now has over 8,000 members. The varied contributions of our alumni volunteers include chapter representatives all over the world, panellists both virtual and in-person, and career mentors. I am grateful to all those who give so generously of their time and expertise for the benefit of UCD students.

## Philanthropic Giving

In challenging times we rely more than ever on the generosity and commitment of our alumni, friends and partners. Philanthropic support is fundamental to UCD's success as a leading, global university. It fuels our ambition as we continue to advance our strategic objectives and shape the future of our society through outstanding education and research.

Our philanthropic campaign has continued apace in 2019/20 against the backdrop of the COVID-19 pandemic and the ensuing economic uncertainty. Another exceptional major gift was received this year towards the development of world-class infrastructure and facilities for UCD College of Science. The financial support will significantly advance this transformative project, now in its final phase. The remarkable generosity of our philanthropic donors has been vital to the progress of this endeavour. Thanks to their vision and support, UCD is firmly established as a leader in pioneering, multidisciplinary research, a centre of excellence in science education, and a hub for innovation in emerging technologies.

This year we have seen first-hand the critical role of universities in developing innovative solutions to society's most pressing problems. As one of Europe's foremost research universities, UCD is taking a leading role in the global response to COVID-19 across the spheres



of medicine, science, engineering, psychology, economics, and social and public policy. To secure the necessary funding to sustain and increase our research momentum, UCD Foundation has established the Breakthrough Research Fund. Donations to this fund support the rapid advancement of UCD's COVID-19 Research Programme, which includes vital work to develop life-saving treatments for this terrible disease. This fund will also ensure that UCD is strongly placed to respond to emerging challenges and opportunities as they arise in the future.

Our alumni and benefactors have always been strong supporters of UCD students, and we have seen an outpouring of generosity and concern for our students this year in particular. The pandemic has hit students hard, robbing them of many of the joys and freedoms of normal university life. Many are also struggling with financial hardship and mental health challenges. Their welfare is of paramount concern. With generous philanthropic support, we are doing our utmost to ensure that every student has access to life-changing educational opportunities, regardless of their social or economic background. Philanthropy helps us to provide students with the resources they need to excel in their education at UCD.

Thanks to the commitment and altruism of our philanthropic supporters we are progressively realising our vision for a campus with a unique physical and intellectual environment that fosters collaboration, ambition and creative problem-solving. Crucially, it will ensure that UCD has the flexibility to adapt to the complexities of providing an outstanding educational experience for future generations of students.

// Our researchers continue to respond to global challenges and, while our immediate focus will be on managing the impact of the pandemic, their efforts to address health, economic and social issues globally continue to go from strength to strength //

### In Conclusion...

You will read a lot throughout this Report about the impact and response to the COVID-19 pandemic. This impact will continue to be significant until a vaccine has been developed, tested and implemented globally. We will continue in our efforts to assist this in every way we can.

This was also a year of many other funding successes, awards and recognition, at both personal and university levels. You will read of those achievements in every chapter of this Report – they are an enormous source of gratitude and pride.

Our researchers continue to respond to global challenges and, while our immediate focus will be on managing the impact of the pandemic, their efforts to address health, economic and social issues globally continue to go from strength to strength.

In October, an international panel of experts visited UCD as part of the QQI institutional review. The review team highly commended our effective, systematic QA processes, which ensure rigorous evaluation of learning and teaching. Their positive report further evidenced the commitment of faculty and staff to deliver the best education and student experience to our students. They also commended the degree to which the strategy of the university was embedded in our planning and operations, and commented on the excitement and enthusiasm the development of our 'Rising to the Future' strategy was generating.

In October, Cardinal John Henry Newman, the founding rector of the Catholic University of Ireland, the antecedent of UCD, and author of *The Idea of a University*, the seminal work on the value of a liberal education, was canonised by Pope Francis.

Our alumni continue to support us, our engagement with them is strong, evidenced by their commitment to support our objectives to ensure the future growth and success of the University and to help our students who may be struggling.

The fundamental aims of the University remain steadfast and allow us to rise to the challenges and to look forward to a post-pandemic world. Together we will Rise to the Future.

Professor Andrew J Deeks,  
UCD President



# UNIVERSITY RESPONSE TO COVID-19



Still working... the UCD Cleaning Team.

Throughout this Report, you will hear from each member of the University Management Team about the extraordinary response to COVID-19 in their areas. From January this year, we stepped up and initially supported our China-based students by moving teaching and learning online.

From March, the global situation had escalated and we had to put the necessary structures in place to ensure that we could continue with the core business of the University – research, teaching and learning. Research continued to flourish, despite the restrictions on working on campus. Our researchers rose to the challenge and provided a range of solutions to the various challenges that arose. We feature some of those successes in this chapter but you can read more about these research achievements at [www.ucd.ie/research/covid19response](http://www.ucd.ie/research/covid19response)

Dr Cillian de Gascun, Director of the National Virus Reference Laboratory was appointed as chair of the Expert Advisory Group tasked with providing advice to the Health Service Executive (HSE) and the National Public Health Emergency Team (NPHET). Our faculty were in constant demand as commentators on the various medical and social aspects of the pandemic and as members of advisory groups and panels.

A great many of the frontline staff nationally are current students or alumni. In their roles as Chief Medical Officer and Deputy Chief Medical Officer, UCD alumni, Dr Tony Holohan and Dr Ronan Glynn became household names in a year that will long stay in the memory. Alumna, Professor Tess Lambe, is one of the Jenner

Institute investigators at the University of Oxford developing the vaccine with AstraZeneca.

In May Professor Cecily Kelleher, Principal of UCD College of Health and Agricultural Sciences was appointed by the Minister for Health to chair a COVID-19 Nursing Homes Expert Panel on Examination of Measures to 2021.

Faculty and staff moved to work from home. We took advantage of the mid-trimester break to plan for the pivot to at-distance teaching and learning. Our key priorities were to ensure that students would continue their learning journeys with minimum disruption, while keeping the health and well-being of all to the forefront at all times. Across the University, significant efforts were made to support

**// Our key priorities were to ensure that students would continue their learning journeys with minimum disruption, while keeping the health and well-being of all to the forefront at all times //**

students in their learning journeys and also to minimise the impact of the crisis on the student experience. On-campus residences stayed open and provision was made for those who needed to self-isolate.

What started as a two-week period of remote working until 29 March lasted throughout this whole year. As guidelines and advice changed, we altered our processes accordingly.

Many faculty and staff had to manage caring and child-minding responsibilities, as well as dealing with the move to working from home. The FAQ page grew exponentially to cover the many supports in place for all and encouraging people to keep in touch with each other and to avail of the health and well-being supports in place.

Over the summer, we planned for a return to campus working for the majority of faculty and staff and a return to campus for students in the Autumn Trimester. Extensive planning went into preparing campus with protocols in place for every eventuality.

The Library continued to operate and provide virtual services during the lockdown and extended their in-person services for faculty from June.

We also had to consider the potential long-term impact with the loss of income to the University's finances. We had to pause many previously approved initiatives, including the Central Pool Academic appointments, the Research equipment scheme and the Advance PhD scheme. New positions were paused where possible.

In line with international partners, we took a decision to suspend inbound and outbound student mobility for the Autumn trimester.

## National COVID-19 Food Study observes eating habits in lockdown

**Research Leads:** Dr Eileen Gibney, UCD Institute of Food and Health; Dr Sharleen O'Reilly, UCD School of Agriculture and Food Science; Dr Aifric O'Sullivan, UCD School of Agriculture and Food Science; Dr Claire Timon (DCU); Dr Celine Murrin, UCD School of Public Health, Physiotherapy and Sports Science; and Dr Emma Feeney, UCD School of Agriculture and Food Science.

The UCD Institute of Food and Health launched the National COVID-19 Food Study in April, in collaboration with DCU. Using an online-only survey in accordance with social distancing, the study gathered information on changes in food and drink behaviours among adults in Ireland since the introduction of COVID-19 restrictions.

The main findings of the study were:

- Almost one-in-three reported weight gain
- 25-44 age group more susceptible to 'COVID kilos'
- One-in-five worried about having enough food
- Charities saw an increase in families in need of food
- Children were acutely exposed to experiencing hunger in the absence of school meals.

Visit [www.ucd.ie/foodandhealth/covid](http://www.ucd.ie/foodandhealth/covid) to see the summary findings and full report.



Prepared face shields for dispatch.

// Our students were to the fore as well – the UCD Medicine Class of 2020 graduated early, in May, enabling them to join the public health workforce //

### UCD Maths Support Centre

The team at the UCD Maths Support Centre produced a series of videos to support Leaving Certificate students. The videos were designed and produced by tutors Rowland Bennett, Anthony Cronin, Kaitlin Farrell, Emma Howard, Christopher Kennedy and Aidan Long. The 235 videos cover both the Higher Level and Ordinary Level Leaving Certificate mathematics courses.

They cover the strands of the Leaving Certificate mathematics curriculum:

- Statistics and Probability (37 videos);
- Geometry and Trigonometry (93 videos);
- Numbers (43 videos);
- Algebra (35 videos);
- Functions and Calculus (27 videos).

The University availed of €21 million additional funding from the HEA (from a total national allocation of €168 million to higher education institutions) to defray costs incurred in dealing with the pandemic. This included €1 million for our frontline response; €5 million for our transition to at-distance teaching and learning; €3 million for the return to education; €9 million for research cost extensions; €772K for student devices; €356,000 to support student mental health and well-being programmes; and €1.5 million to effectively double the Student Assistance Fund. A significant portion of this additional funding has already been made available to the University and the remainder will be allocated over the course of the coming year.

The delay in a decision on the Leaving Certificate exams and results process had a knock-on impact on start dates and a new academic calendar was agreed for the Autumn Trimester. A working group, chaired by Professor Marie Clarke, Dean of Undergraduate Studies consulted broadly across the University and put a Teaching, Learning and Assessment Framework in place.

In March, we paused the P4G performance review and development process. It will resume formally in 2021. Interim check-in meetings will take place where reviewers will meet with their reviewees informally.

### Student Health and Welfare Prioritised by Monitoring Group

Throughout trimesters two and three it was essential that we respond rapidly to the impact the pandemic was having on our students. UMT held weekly meetings throughout the summer



Always on – the UCD Estates Security Team.

to assess and direct this response. Professor Jason Last, Dean of Students, chaired a Monitoring Group to ensure that student health and welfare was prioritised and that these operations were communicated to students. This cross-functional team was comprised of staff from Registrar's Office, Registry, Student Health, Estates, University Relations, SIRC, HR, Global, IT Services, members of faculty, Research and the Students' Union.

A central COVID-19 website was managed so that FAQs for students, faculty and staff were coordinated and updated to ensure that everyone could access timely information with confidence in its accuracy and authenticity. Additionally, University Relations and UCD Global developed a video series 'Rising to the Challenge' to highlight many of the positive student experiences during this period.

Dr Sandra Tighe played a central role in providing healthcare for students. UCD Estates ensured that the residences remained open and safe for the 700 students who remained living on-campus from March to May, providing extra support to students who had to self-isolate.

### UCD COVID-19 Consultative Committee

As we moved into the planning stage for the new academic year, we established a COVID-19 Consultative Committee, chaired by Professor Aoife Ahern with support from Dr Peter Coulahan, Director of SIRC and PJ Barron, Director of UCD Estates to prepare the campus for the safe return of staff, faculty and students. The committee is guided, first and foremost, by national COVID guidelines and complies with the public restriction levels as they are revised according to the prevailing rate of infection.

The committee has representation from faculty, staff and students from across the University community. The committee, which meets weekly, considers COVID-19 policies and their impact on the UCD community, offers advice on these policies and provides feedback to UCD Estates and UCD SIRC on issues relating to COVID-19 across the University. The committee has given a forum to faculty, staff and students to discuss and shape the UCD response.

### Free online critical care courses for ICU nurses

UCD School of Nursing, Midwifery and Health Systems developed freely accessible online courses for nurses working with critical COVID-19 patients. The courses were developed by teaching staff Katie Wedgeworth, Dr Rita Smith and Orla Daly and developed specifically for critical care nurses working in Intensive Care Units (ICUs) and registered nurses relocated to assist and support ICU nurses in High Dependency Units (HDUs) and ICUs – as well as nurse educators.

The content was collated from the many available evidenced-based resources sourced through the UCD Library service and supported by the School's Educational Technologists, who had the expertise to assist with a swift production.



HSE doubles COVID-19 testing capacity through UCD NVRL to 10,000 following GMI agreement.

UCD Estates led much of UCD's on-campus response: from ensuring that PPE is supplied to installing safety equipment and hand sanitisers across the University. A particularly important aspect of the work being done by UCD Estates has been to look after the many students who live on UCD campus. While many of us are away from campus, it cannot be forgotten that UCD is a home for our students living away from home during very difficult times, and the team at UCD Estates has worked hard to ensure UCD accommodation is safe and students are cared for. They have also prepared lecture theatres and study areas for students who are still coming to campus for face-to-face teaching.

The team at UCD SIRC has also been extremely active over the past few months, putting in place the appropriate protocols for responding to different scenarios on campus, including responding to positive cases on campus or in accommodation. The team has worked tirelessly to provide advice and guidance to UCD and to communicate with those on UCD campus regarding appropriate behaviour and responsibilities.

Going forward, and as we bring more students back on campus, the work of the Committee and colleagues at UCD Estates and UCD SIRC will intensify and become even more critical. The consultative committee will continue to meet and provide an important place to discuss interactions between all members of the UCD community until we emerge from the current situation. The role of this committee and in particular of UCD Estates and UCD SIRC has been fundamental in allowing UCD to function and carry on with the important work of the University.

### UCD Contributions to the COVID-19 National Response

Central to much of the national COVID-19 pandemic response was the National Virus Reference Laboratory (NVRL) which led the development and delivery of testing in the early stages of the pandemic. Enfer Group, which provides a laboratory testing service to the agriculture and food sectors, was contracted to provide its



laboratories for a SARS-CoV-2 testing facility under the direction of the NVRL. Staff from UCD School of Veterinary Medicine provided specialised training in testing procedures. The NVRL also partnered with the Department of Agriculture, Food and the Marine State Laboratory at Backweston, Co Kildare to bring additional testing capacity into the system. In addition to its diagnostic work, and with assistance from colleagues at the UCD Conway institute, the NVRL was the first Irish laboratory to sequence Irish strains of SARS-CoV-2.

Researchers and faculty in UCD School of Medicine contributed strongly to the national response in terms of both clinical practice and translational research. Professor Alistair Nichol rapidly mobilised support for a COVID-19 clinical trial among Irish patients in Intensive Care Units as part of global collaborative effort. Many of the School's existing programmes were refocused to respond to the pandemic: UCD Clinical Research Centre, led by Professor Peter

Doran; UCD Centre for Pathogen Host Research, led by Professor Patrick Mallon; and the Critical Care Clinical Trials Network led by Professor Alistair Nichol.

UCD is participating in the World Health Organisation-led SOLIDARITY clinical trial, at St Vincent's University Hospital and Mater Misericordiae University Hospital. This trial intends to rapidly assess the potential efficacy of existing antiviral and anti-inflammatory agents. Other projects include the All Ireland Infectious Disease Cohort, SPRINT – SARI, and REMAP CAP; these activities bring together researchers and clinicians across Ireland to better understand, and respond to, COVID-19.

UCD Institute of Food and Health launched the National COVID-19 Food Study in April, in collaboration with Dublin City University. Using an online-only survey in accordance with social distancing, the study gathered information on changes in food and drink behaviours among adults in Ireland since the introduction of restrictions. Researchers noted the data gathered by the survey should influence future research and policy in food and health. Professor Fiona McNicholas and Dr Blánaid Gavin, UCD School of Medicine, together with Dr John Lyne, produced a special edition of the Irish Journal of Psychological Medicine on the impact of COVID-19 on mental health services.

Our students were to the fore as well – the UCD Medicine Class of 2020 graduated early, in May 2020, enabling them to join the public health workforce. In late spring and early summer, undergraduate nursing and midwifery students supported the national effort when their scheduled practice placements were temporarily suspended, and they were redeployed as frontline care staff. With the resumption of placements in July, the School worked closely with the Nursing and Midwifery Board of Ireland and the health services to ensure that all students progressed through their programme.

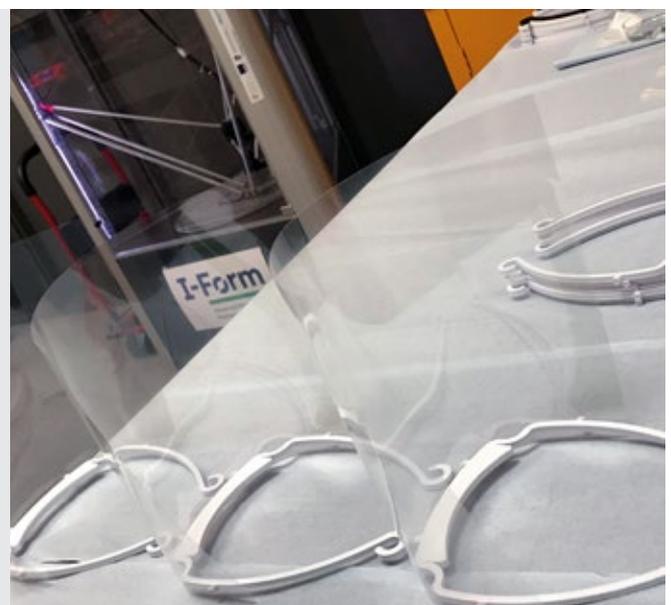
Several faculty also worked in clinical practice, supporting staff in intensive care and other clinical departments during the busy surge period in March and April.

### 3D Printing PPE for Healthcare Settings

**Lead Researchers:** Professor Denis Dowling, UCD School of Mechanical and Materials Engineering and Director I-Form and Professor Dermot Brabazon, DCU and Deputy Director, I-Form.

Personal Protective Equipment (PPE) was in short supply in healthcare settings in Ireland at the height of the pandemic. Within I-Form, the SFI Research Centre for Advanced Manufacturing based at UCD, the COVID-19 Rapid Response Digital Manufacturing and Innovation Hub rapidly designed, manufactured and delivered urgently needed PPE for frontline medical staff in hospitals and other healthcare settings.

Healthcare institutions across the country benefitted from this initiative. The innovative 3D printed solutions helped to plug the supply-chain gap for PPE for thousands of healthcare workers in Ireland at a critical time.



Professor Séamus Fanning and Dr Guerrino Macori, UCD Centre for Food Safety with SVUH, investigated the virus isolated from patients who acquired COVID-19 in hospital during the first wave of the pandemic in March and April 2020. In turn, the research team clearly demonstrated the transmission of the virus among patients and healthcare workers in the hospital. The researchers employed the most advanced sequencing technologies to characterise 52 complete genomes of SARS-CoV-2 isolated from patients and healthcare workers, and taking advantage of the mutation rate of the virus, they revealed also the time-dependent relation of the viruses isolated in different wards.

The UCD Contact Tracing Centre (CTC) was established by UCD School of Public Health, Physiotherapy and Sport Science, following a request from the HSE to assist in the national contact tracing programme. Led by Associate Professor Mary Codd and Professor Patrick Wall, the facility rotated a roster of over 300 volunteers, many from other Schools within UCD College of Health and Agricultural Sciences, and processed up to 600 calls a day at full capacity in the March to June period. The CTC reopened on 9 August and was relocated to the UCD Blackrock campus in September. Now staffed by HSE employees, with ongoing Public Health expertise and oversight provided by Associate Professor Codd and Professor Wall, the CTC at UCD is playing an ongoing and major role in the National COVID-19 Response.

// The UCD Contact Tracing Centre (CTC) was established by UCD School of Public Health, Physiotherapy and Sport Science, following a request from the HSE to assist in the national contact tracing programme. Led by Associate Professor Mary Codd and Professor Patrick Wall, the facility rotated a roster of over 300 volunteers //

## Screening for antiviral compounds active against SARS-CoV-2

**Lead Researcher:** Dr Virginie Gautier, in collaboration with Professor Paddy Mallon  
UCD School of Medicine, UCD Centre for Experimental Pathogen Host Research (CEPHR)

UCD has mobilised our resources and expertise in molecular virology, molecular diagnostics, translational research in infectious diseases, small drug screening strategy, clinical practice and clinical trial management to accelerate the development of antiviral treatments against SARS-CoV-2. This new research programme, funded by the Health Research Board under the national COVID-19 Rapid Response call, is two-fold:

- The team will conduct high throughput drug screening for their capacity to inhibit viral replication in vitro using cell-based SARS-CoV-2 infection models and identify compounds to be included in novel therapeutic interventions to be tested in randomised controlled clinical trials. Of note, their drug discovery strategy is based on drug repurposing, with drugs already approved for clinical use and then immediately available for clinical trials and future treatments.
- The work will actively support ongoing and future clinical trials in Ireland by providing a complete automated high throughput molecular platform to monitor the impact of specific interventions on SARS-CoV-2 replication level. This platform will address the immediate need of clinicians when testing the efficacy and safety of treatment options for patients within a limited timeframe, as it will complement their routine clinical assessment with precise and real-time monitoring of SARS-CoV-2 replication in upper respiratory specimen and/or other samples. These molecular analyses will provide essential information for the evaluation of drugs candidates, and optimisation and design of future interventions.



Prof Mary Codd and Prof Pat Wall with the Contact Tracing Team at UCD.



**UCD COVID-19  
Contact Tracing  
Coordination  
Centre**



## Expanding Care Capacity through Remote Monitoring of COVID-19 patients

**Lead Researcher:** Professor Eilish McAuliffe, UCD Centre for Interdisciplinary Research Education and Innovation in Health Systems (IRIS) Centre and UCD School of Nursing, Midwifery and Health Systems.

**Funded by:** Science Foundation Ireland/Enterprise Ireland/IDA Ireland joint COVID-19 Rapid Response Fund

Professor McAuliffe is leading an interdisciplinary consortium focusing on two COVID-19 care models: (1) The Mater Hospital's virtual clinic where patients submitted 'self-monitoring' data using the HSE's COVID-19 App (developed by Irish digital health firm patientMpower); (2) HSE Mid-West's Community Assessment Hubs to allow symptomatic patients rapidly access health expertise whilst reducing pressure on GP clinics. The project aims to gather evidence about the experiences of patients and healthcare staff of engaging with remote monitoring to learn how not just COVID-19 patients, but other patient groups could effectively manage their symptoms at home.

The successful roll-out and scale-up of this remote monitoring intervention will have immediate benefits to patient safety and service quality in both primary care and hospital settings. This innovation has the potential to dramatically increase the numbers of patients that are efficiently and safely managed by clinical services during the pandemic.

By improving our understanding of acceptability of the remote monitoring device, and barriers/enablers of adherence among patients and healthcare staff, the project will enable improved sustainability and aid the spread of this technology.

## Teaching and Learning

In March, the University had to move to at-distance teaching quickly, to develop teaching and learning resources, provide IT services, support teaching and learning assessments. With an undergraduate student population of almost 17,000 this was no mean feat and involved faculty and staff across all disciplines as well as valuable input from the Students' Union.

The UCD Teaching and Learning team developed resources for both students and faculty in online teaching, learning and assessment. They created materials and provided guides on alternative assessment approaches, conducting online and open book exams, and developing an accompanying integrity and honesty policy. UCD IT Services provided support for students and faculty including managing the virtual learning environments and running clinics for faculty supports.

It was important to take into account the individual circumstances of faculty, staff and students. People were working from home offices or the living room, many students moved home, and

this brought with it new issues including broadband disruption, lack of privacy, lack of necessary equipment, increased caring responsibilities and changes in their economic circumstances. IT Services provided access to a Virtual Private Network (VPN) to facilitate access.

Every module was adapted to provide remote learning and assessment also involved putting mechanisms in place to make it flexible. This was done with Brightspace, the VLE (virtual learning environment) platform.

Professor Marie Clarke, Dean of Undergraduate Studies chaired a working group to support student assessment during COVID-19. This included members of the Students' Union including the President, the Education Officer, and the Graduate Officer.

The group worked in partnership with students in order to provide reassurance around assessment and grading in the Spring trimester. It formalised the guidelines that examiners and modules

// The UCD Teaching and Learning team developed resources for both students and faculty in online teaching, learning and assessment. They created materials and provided guides on alternative assessment approaches, conducting online and open book exams, and developing an accompanying integrity and honesty policy //



Personal Protective Equipment donated to the Mater Misericordiae University Hospital by teams across the UCD medical, veterinary and scientific communities.



The COCOON Study, Professor Fionnuala Ní Ainle, Professor Patricia Maguire and Dr Barry Kevane.

// COVID-19 restrictions resulted in the cancellation of English language tests by the main recognised bodies, and UCD Admissions, along with UCD Global, identified and implemented an alternative which was offered online with robust security //

co-ordinators have always been using but ensured it was clear and transparent to students and faculty.

The extenuating circumstances policy applied to all students in the context of COVID-19 and temporary amendments were made to our academic regulations with reference to grading and opportunities for module remediation.

The Peer Mentor programme, a vital component of the introduction of students to the third-level learning environment was adapted and online recruitment and training process and procedures were developed as the 2020 academic year approached.

Adhering to government COVID-19 guidelines, UCD moved Registry operations online from 12 March. To ensure the continued provision of support services, staff embraced new technology to adapt and streamline operational functions and processes.

COVID-19 restrictions resulted in the cancellation of English language tests by the main recognised bodies, and UCD Admissions, along with UCD Global, identified and implemented an alternative which was offered online with robust security.

## The COCOON study: COVID-19 coagulopathy and thrombosis: Novel prognostic and therapeutic opportunities

**Lead Researcher:** Dr Barry Kevane, Consultant Haematologist at Mater Misericordiae University Hospital (MMUH), UCD Conway Institute of Biomolecular and Biomedical Research and UCD School of Medicine.

**Funded by:** Science Foundation Ireland/Enterprise Ireland/IDA Ireland joint COVID-19 Rapid Response Fund

In this multi-disciplinary study, Dr Kevane worked with key collaborators Professor Patricia Maguire and Professor Fionnuala Ní Ainle, co-directors of the UCD Conway SPHERE research group, as well as senior clinicians in infectious diseases, critical care medicine and acute medicine.

This is an international project examining blood coagulation in COVID-19 patients and its interplay with inflammation. The study aims to address urgent clinical dilemmas and to develop novel solutions for existing diagnostic and therapeutic challenges. Using advanced AI and genomics technologies, the project will deliver enhanced thrombotic prevention strategies and a rapid diagnostic platform for personalised risk assessment.

Identifying novel biomarkers for disease and in particular identifying biomarkers which are predictive of severe illness would facilitate a more accurate risk stratification of patients, potentially identifying patients who may require earlier critical care support. Further to recent data reporting a survival benefit associated with heparin in COVID-19 and considering the known anti-inflammatory properties of heparin, the identification of fractions within existing commercial heparin formulations with optimised cytoprotective/anticoagulant activity could lead to a novel supplemental therapeutic option in cases of COVID-associated Acute Respiratory Distress Syndrome (ARDS).

This novel and disruptive approach to risk stratification will arm clinicians with an affordable tool to channel resources appropriately and prevent unnecessary adverse outcomes through prevention of thrombotic complications. In collaboration with their international partners, the researchers believe that their approach will rapidly shape international clinical practice.

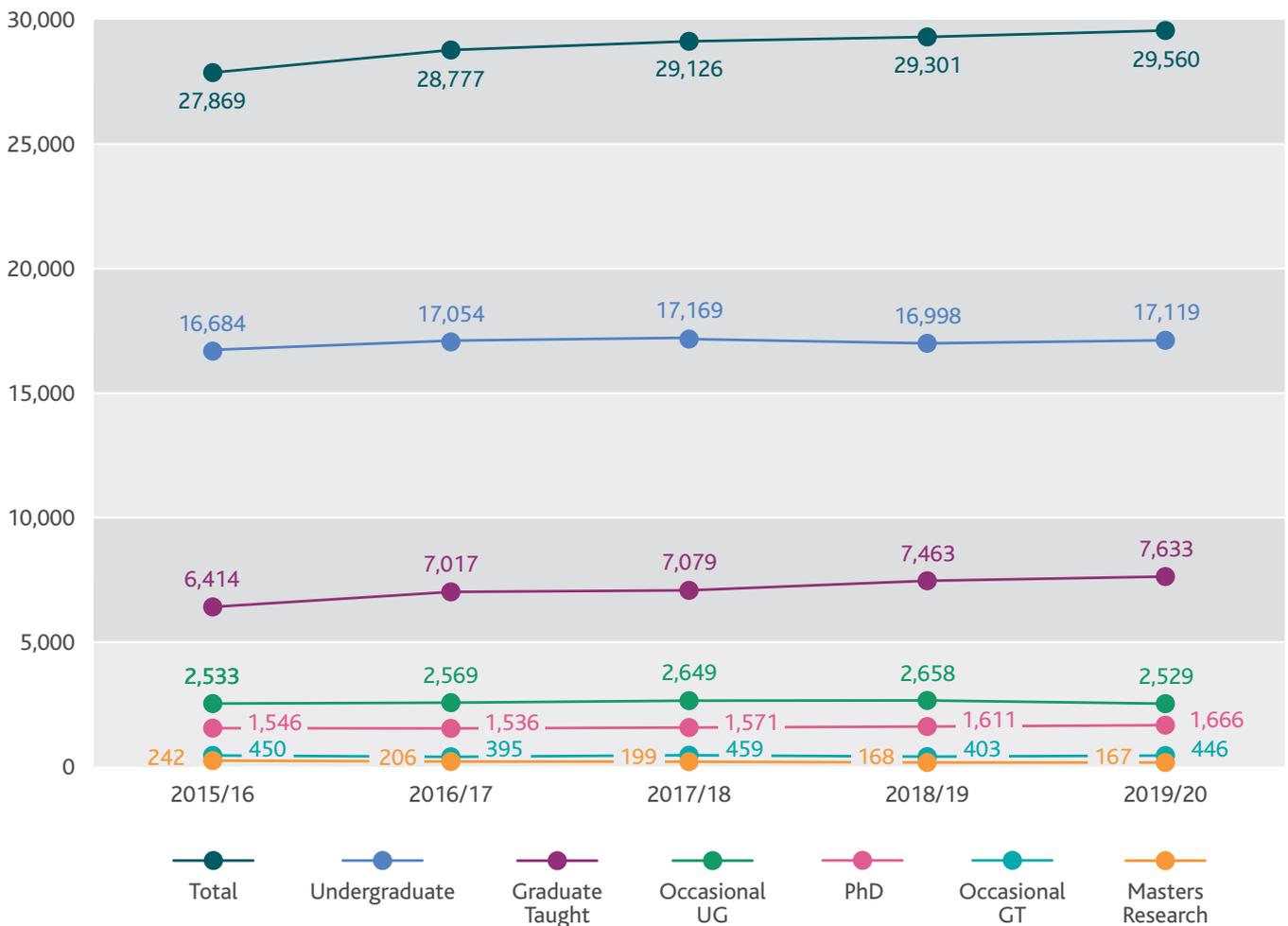
Many activities supporting and enhancing the graduate research experience moved online, including transferrable skills provision, workshops and webinars and the UCD Thesis in 3 competition.

Procedures for conducting and approving virtual viva voces were developed so that PhD students could complete their theses submissions.

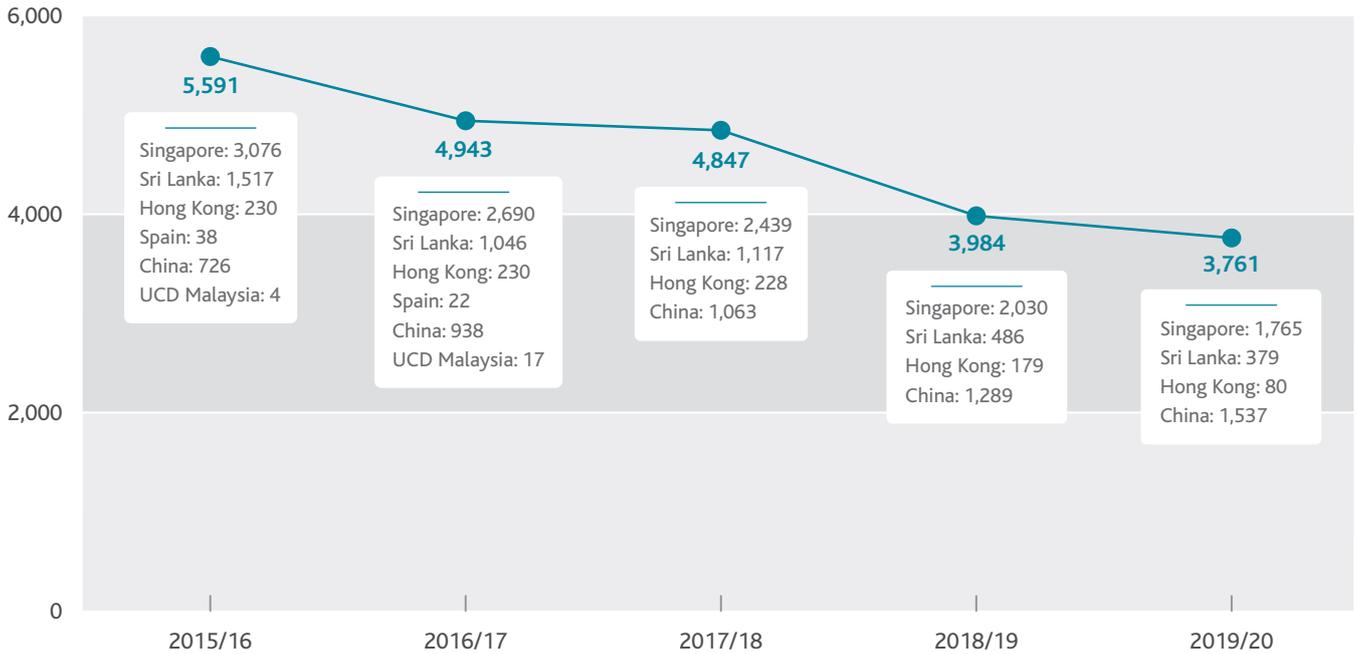
# UCD BY NUMBERS



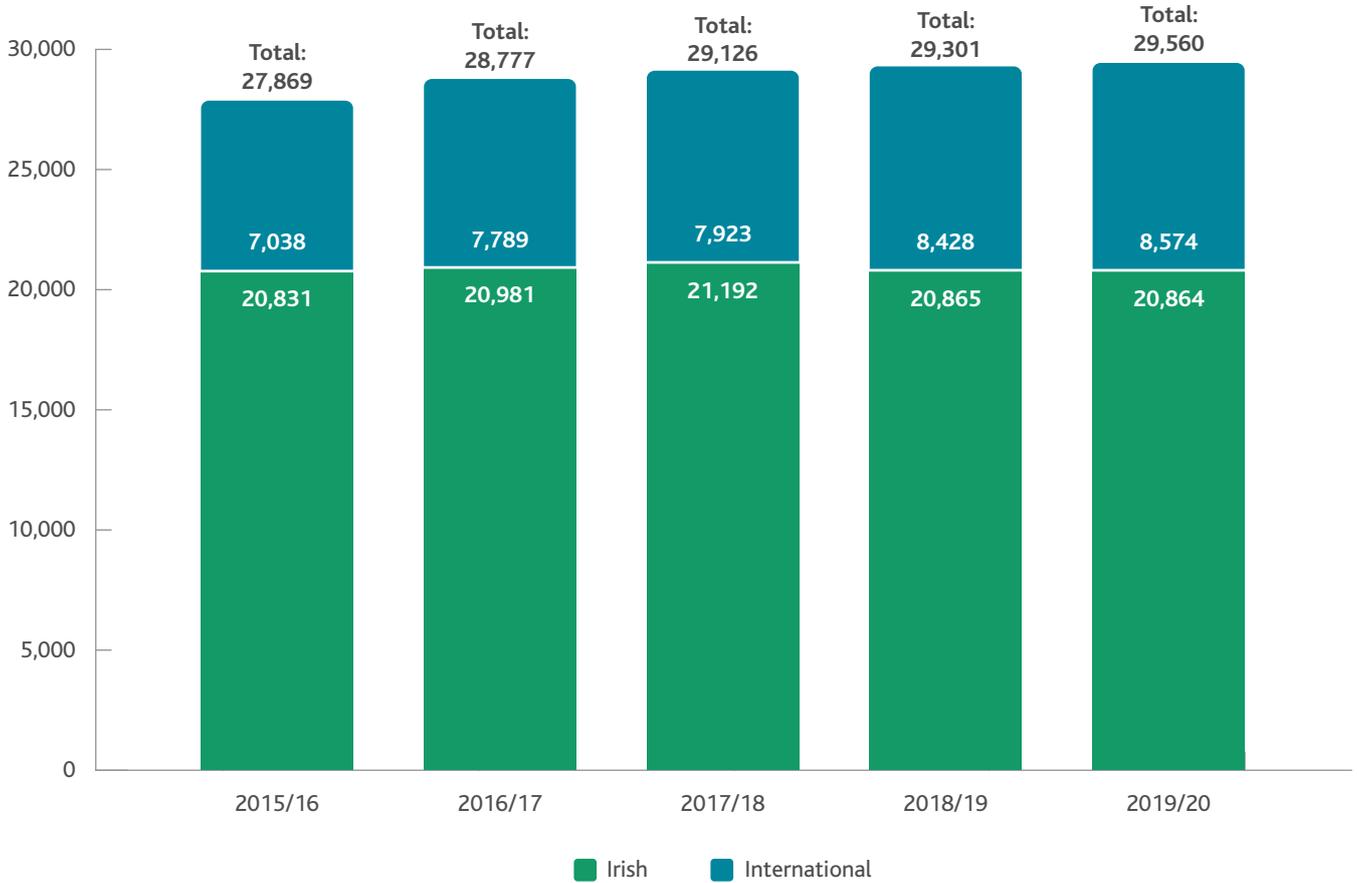
Student Statistics Ireland Campuses



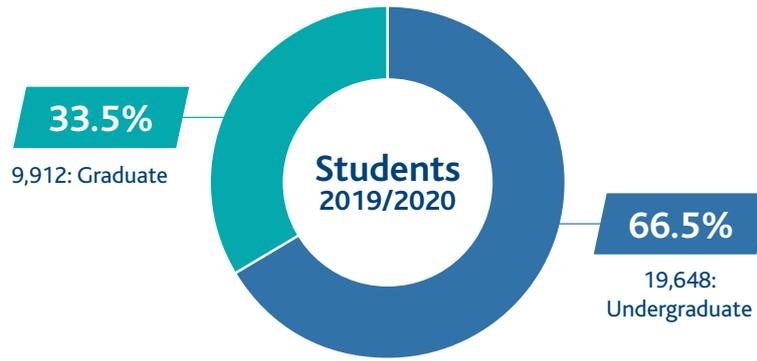
### Student Statistics Overseas Operations



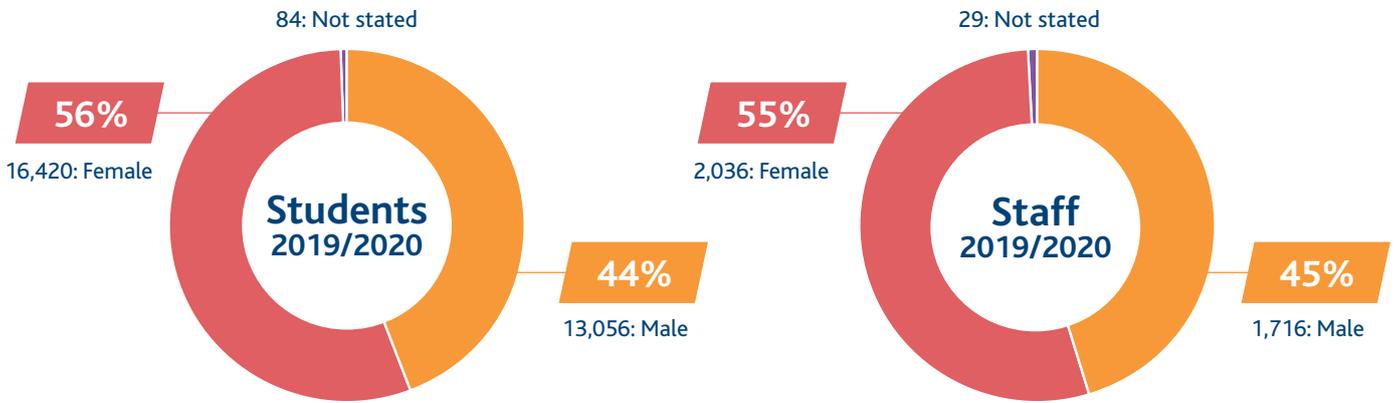
### Students in Ireland



### Undergraduate/Graduate Breakdown



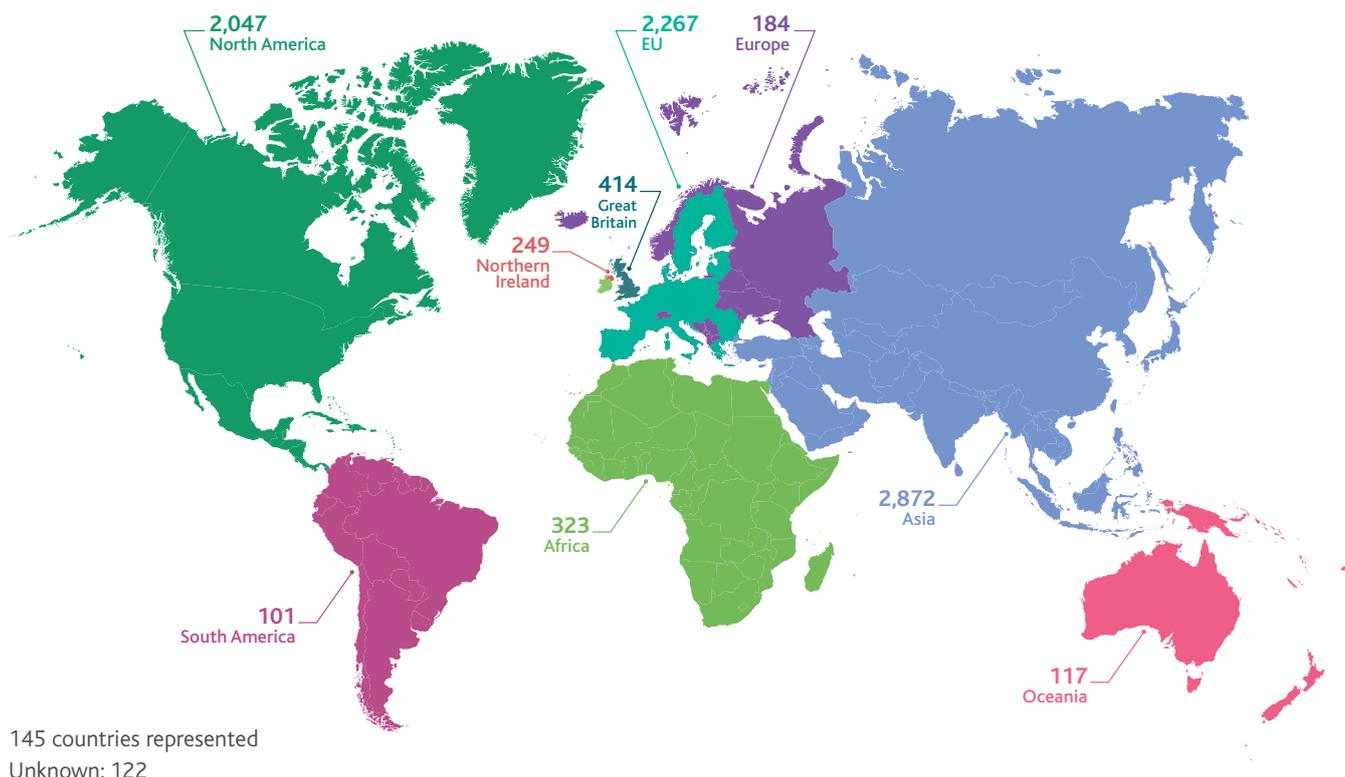
### Female/male Breakdown



### Staff Statistics in Ireland



## International Students by Region 2019/20



## Undergraduate and Graduate Numbers by Discipline Ireland 2019/20

	Undergraduate	Graduate	Total
Generic programmes and qualifications	313	–	313
Education	22	845	867
Arts and humanities	3,293	393	3,686
Social sciences, journalism and information	2,067	843	2,910
Business, administration and law	3,777	2,262	6,039
Natural sciences, mathematics and statistics	2,367	1,051	3,418
Information and Communication Technologies (ICTs)	569	743	1,312
Engineering, manufacturing and construction	1,730	1,182	2,912
Agriculture, forestry, fisheries and veterinary	1,754	547	2,301
Health and welfare	3,623	2,020	5,643
Services*	133	26	159
<b>Grand total</b>	<b>19,648</b>	<b>9,912</b>	<b>29,560</b>

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.

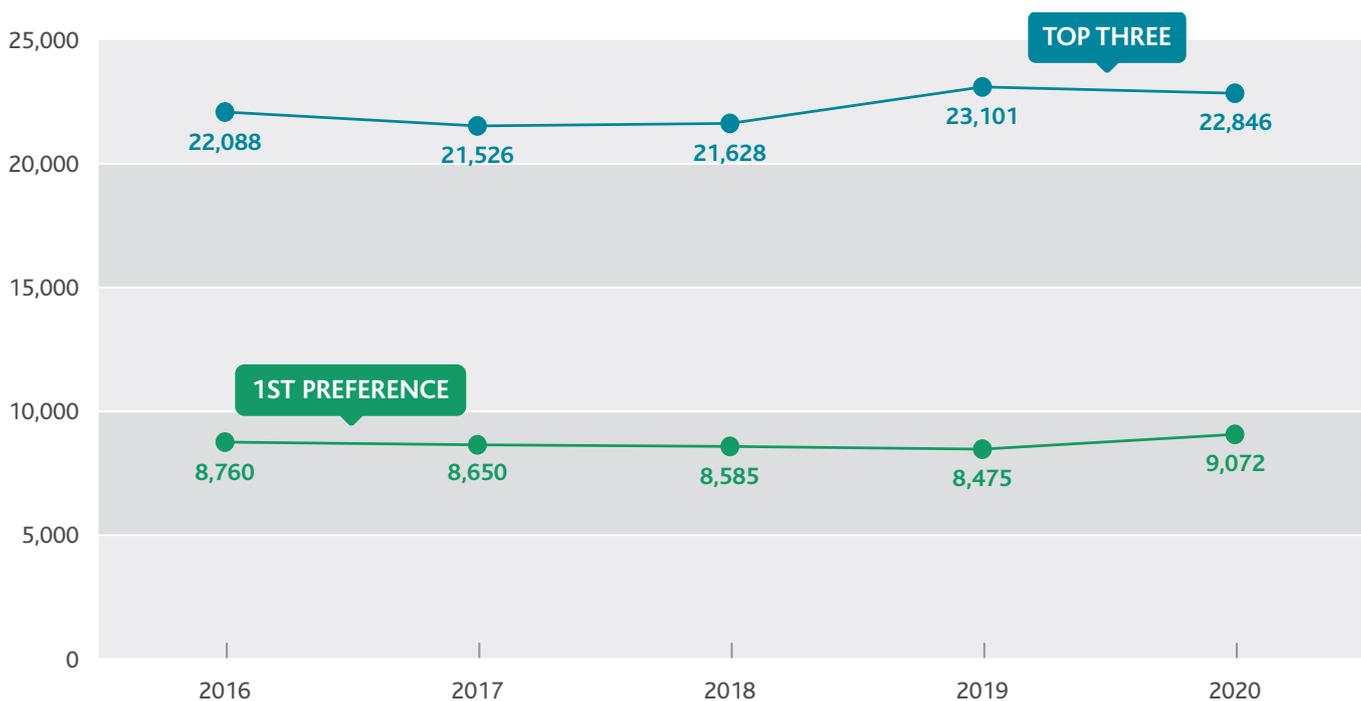
\* Services include programmes such as Safety and Health at Work.

## Top 20 Countries UCD Alumni\*

 <b>209,948</b> (1) Republic of Ireland	 <b>3,093</b> (8) France	 <b>976</b> (15) Malaysia
 <b>14,929</b> (2) United States	 <b>3,058</b> (9) Germany	 <b>927</b> (16) Belgium
 <b>12,956</b> (3) Singapore	 <b>2,301</b> (10) Australia	 <b>829</b> (17) Netherlands
 <b>10,685</b> (4) United Kingdom (England, Scotland, Wales, Northern Ireland)	 <b>2,185</b> (11) Spain	 <b>670</b> (18) Switzerland
 <b>6,331</b> (5) Sri Lanka	 <b>1,989</b> (12) Canada	 <b>469</b> (19) United Arab Emirates
 <b>3,886</b> (6) China	 <b>1,963</b> (13) India	 <b>410</b> (20) Austria
 <b>3,183</b> (7) Hong Kong	 <b>1,397</b> (14) Italy	

\* Alumni for whom we hold contact details

## CAO 1st Preferences



# EDUCATION



## Introduction by the Registrar and Deputy President

This year the incredible attitude of faculty and staff, the willingness and flexibility to work together to change fundamentally our approach to education and the operation of the University over a few short weeks, truly demonstrates UCD's values in action.

I am delighted to present a summary of just some of our achievements in education and experience in this most challenging of years, and I do this in conjunction with Professor Barbara Dooley, Dean of Graduate Studies and Deputy Registrar, Professor Marie Clarke, Dean of Undergraduate Studies and Professor Jason Last, Dean of Students.

It was a year in which we remained the university of first choice for domestic undergraduate students with a 7% increase in first preferences and an 11% increase in domestic taught graduate recruitment. Our new academic regulations came into effect in September which is a significant enhancement to our programmes. The regulations will encourage greater flexibility in programmes, and flexibility for internships and international exchange within programmes, as well as in assessment and provision of feedback for students.

In October, an International panel of experts visited UCD as part of the QQI Institutional review. Occurring every seven years, the QQI CINNTE review looks at how well an institution's internal Quality Assurance (QA) procedures work and identifies areas for improvement. The review team highly commended our effective, systematic QA processes, which ensure rigorous evaluation of learning and teaching, and the effective use of externality in review methods. Their positive report further evidenced the commitment of faculty and staff to deliver the best education and student experience to our students. In the coming years we will implement their recommendations for further enhancements.

UCD continues to reshape the conversation about access and inclusion in higher education and in April, we launched a 'University for All Implementation Strategy'. Our pioneering initiative 'University for All', is the whole-institution mainstream approach that recognises that all students feel welcome, belong and are valued. Underpinned by the UCD Strategy – Rising to the Future, our vision is to create an inclusive educational environment where access and inclusion is the responsibility of all in the University.

The spring trimester changed the focus of our attention dramatically as the Coronavirus pandemic emerged from China. Our transition to at-distance teaching began in February when our programmes in China moved online. In March, we responded to the enormous challenge of continuing to provide education to our students in Ireland in a worldwide public health crisis. We adapted our supports to ensure our students could continue to access academic advice, student advisers, counsellors and health services. We adapted our buildings, teaching spaces and offices to enable faculty, staff and students to remain on our campus safely. Our library opened at the earliest opportunity and has continued to provide support and service to our students and faculty during the summer.

The announcement of the postponement of the Leaving Certificate and the change to calculated grades, saw our Admissions team consulting with stakeholders nationally to monitor the impact of the changes and to provide solutions to evolving exam release dates which impacted on the acceptances of UCD places.

It has been encouraging to see partnerships between units and offices deepen, as they adapted to changing situations and combined their expertise and skills to deliver the best educational experience. I want to thank all the units and offices who work to the Registrar: UCD Access and Lifelong Learning, Ad Astra Academy, Agile, Careers Network, Graduate Studies, IT Services, Library, Quality, Registry, Student Advisers, Student Engagement, Conduct, Complaints and Appeals, Student Services, Teaching and Learning and the University Secretariat.

One could not have asked our community to do more and yet, our staff and faculty continued through the spring and summer to work to deliver our programmes and support our students to the highest

standard. This year many of us faced personal challenges, and some suffered the pain of illness or loss. I am confident that we will continue to rise to challenges together and continue to provide the best environment we can for our students, our colleagues, and the University community.



**Professor Mark Rogers**  
Registrar and Deputy President

### Promoting Excellence in Teaching and Learning

In March, in response to the COVID-19 restrictions on face-to-face teaching, learning and assessment activities, UCD prioritised the development of guidance and resources to support faculty to make a rapid transition to emergency remote teaching. A collaborative approach was adopted, with UCD Teaching and Learning working closely with senior teaching and learning leaders university-wide, and colleagues in UCD IT Services, Assessment and the Educational Technology Advisory Network. Tangible outputs from this focused piece of work included bespoke guidance and resources on:

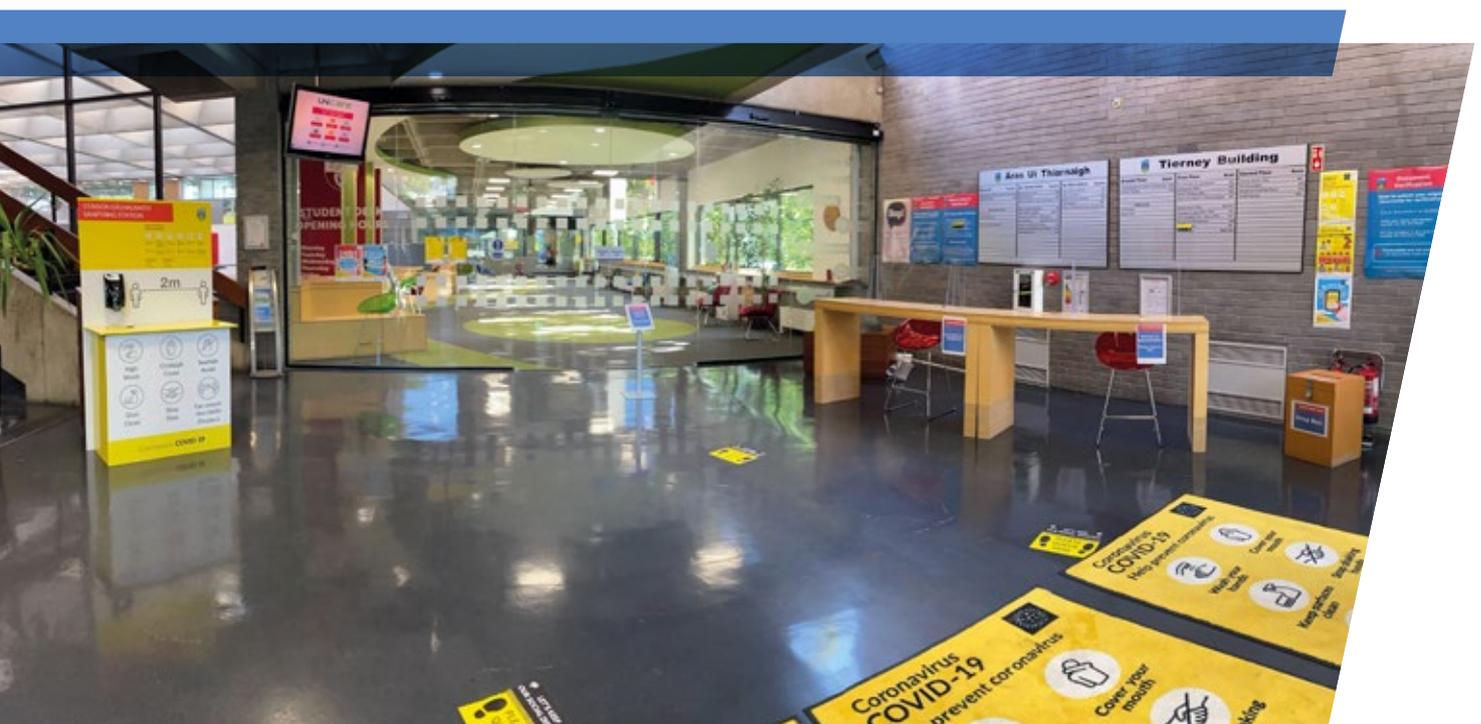
- Designing alternative assessment approaches
- Online delivery of teaching and learning
- Guidance on academic integrity in online and at-distance assessments
- Student guides on take-away and timed online exams
- Input into institutional FAQs on teaching, learning and assessment.

UCD resources and expertise also contributed to national and international efforts to ensure continuity of teaching and learning despite the unprecedented challenges. UCD contributed to activities led by the National Forum for the Enhancement of Teaching and Learning; Universitas 21 Educational Innovation Leaders forum; International Collaboratory for Leadership in Universally Designed Education; IUA; and QQI.

Moving beyond 'emergency pedagogy', we revised, repurposed and continued to supplement resources on blended/online learning design. A series of webinars was offered over the summer months to support faculty to plan for online/blended teaching in the Autumn trimester, complemented by Brightspace VLE training.

### Supporting the Professional Development of Faculty

Growing numbers of UCD faculty are developing their teaching by enrolling in UCD's University Teaching and Learning Programmes.



The foyer of the Tierney Building, with all off the necessary COVID-19 arrangements in place.

# 64

graduates from the UCD Professional Programmes in University Teaching

# 115

average doctoral student participants in popular online workshops

The programmes can facilitate those with an active higher education teaching role to choose a programme that fits around their work commitments and personal life. This year, there were 64 graduates in total from the UCD Professional Programmes in University Teaching and Learning, 20 from the one-year Professional Certificate, 21 from the Certificate of CPD and 23 from the Professional Diploma.

### Funding Awarded for Learning Enhancement Projects

In October, following a successful application by UCD, €170,000 was awarded through the HEA and the National Forum for the Enhancement of Teaching and Learning, to stimulate and support small-scale learning enhancement projects (LEPs). In November, a cross-section of the UCD community including students, faculty and staff, identified areas across schools and units that could benefit from small-scale enhancement funding. With grants of up to €5,000 available, 90 applications were funded. The projects are due to complete at the end of December, with many extended to May 2021.

### Funding Awarded for Disciplinary Excellence in Teaching and Learning

The National Forum for the Enhancement of Teaching and Learning in Higher Education, in partnership with the HEA, also issued a call for proposals for a new fund focusing on the development of disciplinary excellence in learning, teaching and assessment. Following internal competition, six team-based project proposals were put forward by UCD, and all were successfully funded.

- Digital Methods and Data Literacy: led by Professor Gerardine Meaney, UCD School of English, Drama and Film (€96,500)
- Enhancing Intercultural Communication with scenario-based online resources: led by Dr Sandrine Peraldi, UCD School of Languages, Cultures and Linguistics (€28,000)
- Creating a Core Academic Integrity Model for plagiarism avoidance: jointly led by Mr Peter Hickey, UCD Library and Professor Anne Drummond, UCD School of Public Health, Physiotherapy and Sports Science (€48,000)
- Computational Science: A Collaborative Approach to Engaging Stage 1 Science Students in Computational Thinking: led by Associate Professors Ted Cox and Maria Meehan, UCD School of Mathematics and Statistics (€115,700)
- Embedding virtual reality radiography training to enhance the student learning experience: led by Professor Louise Rainford, UCD School of Medicine (€49,500)

- Students as partners in a Social Justice learning environment: led by Ms Judy Walsh, UCD School of Social Policy, Social Work and Social Justice (€42,300).

### Ireland's Inaugural Teaching and Learning Research Fellowships

Dr Brett Becker, UCD School of Computer Science and Associate Professor Geraldine O'Neill, UCD Teaching and Learning were each awarded a Teaching and Learning Research Fellowship worth €45,000 following a national, three-stage competition. These were two of the five national fellowships awarded. The fellowships are an initiative of the National Forum for the Enhancement of Teaching and Learning, in partnership with the Irish Research Council. The Fellows will work together and with the National Forum on projects of sectoral importance, bringing a new dimension to the research-led teaching and learning culture in Irish higher education and contributing to a robust evidence base for future teaching and learning enhancement decision-making across the sector.

### New Teaching and Learning Website

In January, an extensively redeveloped website to support UCD faculty and staff was launched: [www.ucd.ie/teaching](http://www.ucd.ie/teaching). The website contains a wealth of teaching and learning resources grouped into five thematic areas: Teaching Toolkit, Module and Programme Design, Assessment and Feedback, Technology Enhanced Learning and Review and Research. The website showcases UCD case studies of teaching and learning approaches by discipline. The site also provides information on professional development offerings, news, and events.

### Enhancing Digital Teaching and Learning

This year saw two educational technologists employed under a co-funded model to enhance the digital attributes of graduates in the College of Engineering and Architecture and the College of Science under 'Enhancing Digital Teaching and Learning' which is funded through the HEA's Innovation and Transformation Programme through the IUA. A large part of their work to date has been assisting staff to transition their modules online.

### Educating and Developing our Graduate Research students

#### Skills Development for Doctoral Research Students

This year was filled with popular transferable skills workshops and webinars delivered by our guest facilitator from Adelaide, Hugh Kearns and UCD Graduate Studies. Workshops were delivered face-to-face in January and then online in April, May, and June. The online provision proved particularly popular with doctoral students, with average numbers of 115 participating. Workshops included Staying Well, Managing Your PhD, Turbocharging Your Writing, Presenting Your Research with Confidence, PhD Masterclass I and II and The Imposter Syndrome. Prior to COVID-19 restrictions, UCD Graduate Studies delivered face-to-face workshops on Minding the TAP, Your Supervisor and You, and Getting to Grips with your RPDP, which were also made available online.

To support students with their writing skills, we held a writing week between 26 November and 6 December in conjunction with the UCD Writing Centre and all seven workshops were fully subscribed. Given the identified need to support PhD writing, in June, UCD hosted Dr Peeta Freestone who facilitated a Thesis Boot Camp for

35 doctoral students. Three days of intensive thesis writing were accompanied by Tips and Tools for better writing practices. Due to popular demand the Thesis Boot Camp will run again in early 2021.

### Student Engagement Survey

This year, the national and institutional results of the first Irish survey of student engagement for graduate research students were compiled. The final report provides overarching university data, UCD data, as it compares to the other universities in Ireland, as well as data by College and School. This is particularly important as it will inform our understanding of the UCD graduate research student experience and identify quality enhancement strategies.

### Research and Professional Development Planning

Research and Professional Development Planning (RPDP) is integral to the UCD PhD programme. A RPDP plan is formulated with the support of the Research Studies Panel. From September 2019, a completed RPDP form is now an essential element of a research candidate's Stage Transfer Assessment and in accordance with regulations. This change will significantly support how we ensure a candidate's work remains focused on achieving their research and professional development goals.

### ThesisIn3

All UCD Stage 2 PhD students were invited to submit an entry to the ThesisIn3 Competition and share their research with the UCD community. The winner of ThesisIn3 represented UCD in the Universitas 21 Three Minute Thesis Competition where they competed with researchers from across the globe. The winner of the UCD 2020 ThesisIn3 competition was Mr Tom Hall. The title of his presentation was 'T.B or not T.B, can networks answer the question'. Mr Hall is a PhD candidate in UCD School of Agriculture and Food Science. Ms Ciara Hayes, UCD School of Veterinary Medicine and Mr George Vathakkattil Joseph, UCD School of Mechanical and Materials Engineering were runners up.

### Research Supervisor Support and Development

In December, UCD hosted Dr Margaret Kiley (Australian National University, Canberra) for the symposium 'Reflections on Change in Graduate Education'. All research supervisors were invited to the symposium which addressed major changes in doctoral education, the employment agenda, multidisciplinary research and challenges and benefits arising in graduate education for research students and supervisors.

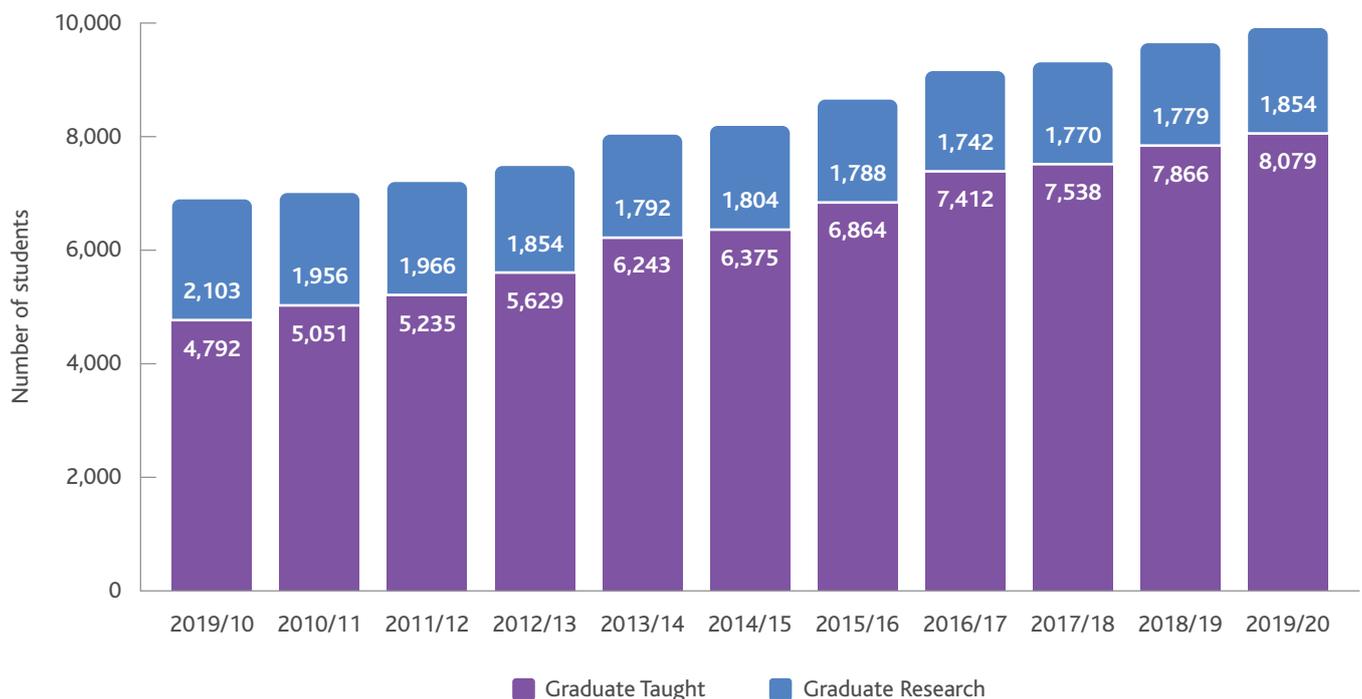
9,912

UCD Graduate students



14.6%

increase over the past five years



This year the Research Supervisor Support and Development Programme was a blended delivery, beginning face-to-face and then moving to a virtual delivery for research supervisors registered from UCD, TCD and RCSI. Uptake was excellent with close to 100 supervisors registered.

In June, to enhance our collaboration with Teagasc, an online webinar specifically tailored for early-stage supervisors was delivered by UCD Graduate Studies. The webinar 'Online and Co-Supervision, Top Tips' was attended by 40 Teagasc supervisors.

This year also saw the launch of the first Dean's Award for Excellence in Doctoral Research Supervision, which was awarded to Professor Ian O'Donnell, UCD Sutherland School of Law in July. The new award is student driven, with supervisors nominated by two of their existing or graduated doctoral research students. An adjudication process with peers, the Dean of Graduate Studies and an external expert deliberated over the applications, taking into consideration the supervisor's experience and approach to supervision.

## Valuing Student Engagement and Life Skills

### Career Development and Employability

With the closure of campus in March, UCD delivered services, modules, and programmes for enhancing student employability and career development, online. Despite the COVID-19 pandemic, the UCD Careers Network reached over 12,000 students, who participated in career development and skills workshops delivered across the College and School landscape. In the same period, the importance of career development to their studies was evident, with 1,800 students completing credit-bearing modules.

Striking a balance between embedding career development into the curriculum while supporting co-curricular engagement is important and our Career Development and Employability Strategy 2015-2025 speaks to both while the UCD Strategy 2020-2024: Rising to the Future, speaks to leading the way in shaping the world we live in to benefit humanity, the environment and sustainability. This year, before our education delivery moved online, we embedded these strategic aspects through the Sustainable Development Goal Challenge which showcases examples of collaboration, student development and global awareness. In partnership with UCD Green Campus, UCD Innovation Academy, Healthy UCD, UCDVO, the UCD Careers Network challenged students to work in teams to find creative solutions to issues facing the UCD community and to pitch their ideas to a panel of judges. The challenge presented students with the opportunity to develop their creativity, problem-solving and teamworking skills while at the same time, raising awareness of the UN Sustainable Development Goals. The challenge included workshops on design thinking and on pitching your ideas to help prepare students for the process. Ten groups pitched on the challenges below:

- How would you ensure the UCD community recycles correctly and prevents waste contamination? (Links to SDG12, Responsible Consumption & Production).
- How would you encourage healthy eating at UCD? (Links to SDG3, Good Health & Wellbeing).
- How can UCD harness the benefits of technology to provide the UCD community with opportunities to engage in international volunteering and developmental educational activities? (Links to SDG 10, Reducing Inequalities).

The feedback from the students was undoubtedly positive – 91% feel more confident about presenting and pitching in the future; 100% said the challenge was enjoyable and fun and 100% would recommend it to a friend.

In March, UCD also transitioned online for career coaching services, modules, workshops and events. Social Impact Week, developed in response to the growing number of students seeking work in ethically conscious organisations, was planned as a live event but quickly restructured using a virtual platform. Information was shared daily over the course of a week followed by live chats with industry professionals including ECO-UNESCO, Food Cloud, Gheel Autism Services, For Purpose and the Irish Wheelchair Association. A total of 2,480 students engaged over the week, including 480 students on live sessions, with over 600 story views and 1,400 IGTV views. Feedback from both participating organisations and students was uniformly positive with an overwhelming support for similar events in future.

### Report and Support and the Active Bystander Programme

In February, we launched UCD Report and Support, which was developed under the oversight of the UCD ESHTe group (Ending Sexual Harassment and Violence in Third Level Education) chaired by the Dean of Students. This tool enables any member of the University community to report incidents of bullying, harassment, sexual harassment, and sexual violence anonymously. Key features of UCD Report and Support include enabling bystander reporting; provision of information about the options available for addressing incidents and information; and information about supports.

Supported by UCD Student Engagement, Conduct, Complaints and Appeals, and UCD Equality, Diversity and Inclusion, information collated will be used to guide UCD in targeting actions and initiatives to raise awareness and prevent incidents. UCD Report and Support is the first tool of its kind across the Irish Higher Education Sector, and the project team leaders are actively assisting other Irish higher education institutions as they develop similar systems.

Following a successful pilot in 2019, the *Active Bystander Programme* was adapted for online delivery in preparation for orientation 2020. This programme aims to educate students about what sexual harassment and violence is, and why bystander action is important in making the University a safer and more respectful environment for everyone. The programme will be made accessible to all incoming Stage 1 students and graduate students in September.

### UCD Student Advisory Service

To strengthen our support to students, and assist with specific cohort needs, in November we appointed a Student Adviser dedicated to Graduate Research students. Unfortunately, with the arrival of the COVID-19 pandemic restrictions in March, all our students faced new challenges.

The working practices of our Student Advisers changed to take into consideration these challenges and enable the team to respond in a prompt and meaningful way. Numbers of students contacting their Student Adviser in March, increased by almost 40% over the same time last year. Many students expressed concern on adapting to the new teaching delivery. After an initial period of uncertainty, students adapted well and continued to engage with their studies, academic

leaders, and classmates. In April and May, close to exam time, increased numbers of students reached out for support. Throughout the trimester, stress and anxiety were a primary concern. Processes to grant students emergency funds were revised and simplified to enable Student Advisers to respond to queries with greater ease.

### Student and Academic Administrative Services

In March, the Student Desk in UCD Registry substituted face-to-face and telephone support with the introduction of a Google Hangouts Chat service where students could talk to the team in real-time. This service proved to be extremely popular, with 7,803 chats logged from March onwards. Following the return of the team to campus in August, an appointments service was offered to allow staff to meet with students safely.

### Recruitment, Outreach and Mentoring

To support student recruitment, Unibuddy, the online peer-to-peer platform, has seen over 6,300 individual conversations with UCD students during the period covered by this report. It has now been rolled out for the recruitment of non-EU and graduate students. The platform was further enhanced to include staff from each college, each global centre and key support units leveraging recruitment and conversion engagements.

Student recruitment continued through both UCD and external virtual events and campaigns including UCD's Summer School in June 2020 which was attended by 7,800 prospective students. This represents a 550% increase on 2019 with a new audience of 800 Non-EU students. In addition, attendance at Graduate Open Days in February and June grew by 2,500. The schools outreach programme successfully transitioned to an online platform and has received extremely positive feedback from Guidance Counsellors and students.

The UCD Widening Participation Outreach Network is responsible for development of a coherent coordinated approach to enable UCD to extend its reach and create awareness of all that the University has to offer. This year we hosted a Mentoring Training day on behalf of the PATH Cluster: almost 200 students from UCD, TCD, NCAD, IADT and MIE participated. Mentors then delivered mentoring sessions in a range of DEIS schools, further education colleges, and community organisations.

Our Mentoring Programme continued with 500 students from UCD's 18 link secondary schools participating, meeting with 32 UCD Student Mentees, visiting campus, and experiencing 'taster' lectures. In March, due to COVID-19 restrictions, the programme was moved online. Sixty participants enrolled in the Residential Summer School also, while over 200 prospective students participated in the Student Experience Day 2019 from a range of schools, Traveller organisations, disability organisations and further education colleges.

// In March, the Student Desk in UCD Registry substituted face-to-face and telephone support with the introduction of a Google Hangouts Chat service where students could talk to the team in real-time. This service proved to be extremely popular, with 7,803 chats logged from March onwards //



Pictured at the See One Be One Awards are (l-r): Eddie Nugent; Prof Mark Rogers, Registrar and Deputy President; Professor Maurice Manning, Chancellor of the National University of Ireland; and Fredia Jameson.

UCD continued to lead the PATH Higher Education Cluster (TCD, NCAD, IADT, MIE), to address access and inclusion. Five strands of activity continued: 1916 Bursaries, Creative Arts Summer School, Open Learning, Mentoring and Dublin Learning City. UCD also launched the Pathways to the Professions project, which received €1.2 million funding from Rethink Ireland. This is a collaboration between UCD Access and Lifelong Learning, and UCD Sutherland School of Law and addresses early career barriers experienced by access students.

UCD also developed a strategic partnership with AHEAD to deliver a national rollout of the Digital Badge in Universal Design for Teaching and Learning. Part of the professional development framework of the National Forum for Teaching and Learning, it showcases University for All and the Toolkit for Inclusive Higher Education Institutions.

### Prioritising Student Health and Well-being

During the campus closure, and in compliance with government restrictions, UCD ensured the Student Centre and Support provisions remained accessible to those who needed essential care and assistance within the UCD Community. In alignment with delivering the University's key objectives, the sample of initiatives mentioned below illustrates an overcoming of external constraints whilst building engagement locally, nationally, and internationally, and in every aspect developed and strengthened our community spirit at a time when it was needed most.

UCD strives to ensure student facilities and supports offer a premium student experience. Investment in student welfare this year included a refurbishment of the Students' Union office, and additional staff recruited to Student Counselling. In line with the digitalisation aspect of the University strategy, a new online voting system was established for Students' Union elections, while on the ground, student life flourished as the Student Centre hosted over 3,000 student events from September up until restrictions were put in place in March.

### Health and Counselling Services and UCD Chaplaincy

For continuity of service our Student Health and Counselling consultation rooms were adapted for COVID-19 protective measures. Medical care continued to be provided in-house with the service experiencing a spike in demand related to COVID-19 case management. Supporting students on-campus in residences and remotely via phone/online consultations remained a priority of the service. Approximately 13,382 medical consultations were conducted from September to August 2020. The service was also able to respond promptly by migrating to a digital offering which enabled staff who were required to work from home to do so. Prior to autumn trimester exams, UCD Chaplaincy developed a "Rest and Relaxation" sanctuary within the Student Centre. This provided students with a place to 'calm nerves' and take refuge by enjoying a tea/coffee and a chat with our chaplains. The Chaplaincy also initiated an Online Interfaith Prayer Wall, creating a platform for students and staff to express their thoughts and intentions whatever their faith or beliefs may have been. In addition, 'Walk & Talk' sessions were available which gave students the opportunity to invest in their physical and mental health through socially distanced conversation.

### Sport and Fitness

This year we were pleased to install new rugby floodlighting on the Thornfield grass pitch and to enhance the National Hockey Stadium's new pitch surface. As planned, the pitch is providing a world-class surface for our 11 student hockey teams. UCD also pledged its support to our female student body by joining the 20x20 Charter Movement which actions the cultural shift in our nation's perception of women in sport. In doing so, the UCD Bowl hosted Ireland's Women's Rugby team for their November International game versus Wales.

Our sports clubs encouraged students to remain physically active in a socially distanced manner for both their physical and mental health. UCD GAA raised €2,000 for Temple Street Children's



Pictured at the official opening of the new hockey pitch surface at the UCD National Hockey Stadium are (l-r): Aaron Empey, UCD Hockey Men's Club Captain and Alison Priestman, UCD Hockey Ladies Club Captain, surrounded by their peers.

# 16,000

## gym users accessed On-Demand Fitness Classes from the safety of their homes

hospital during the COVID-19 lockdown in April by creating a social media campaign to motivate club members to run 5km. Online learning for clubs was developed with modules in data protection, safety, first aid and safeguarding children was undertaken by 51 sports clubs. UCD continues to be a training home for over 68 clubs drawn from the greater Dublin region. In addition, it is a key training venue for the EURO 2021 and continues to be the host training venue for visiting international rugby teams. UCD also gave families within the UCD community an outlet for their children's physical and mental development by organising Children's Sports Camps albeit in a revised COVID-19 appropriate manner. The investment of energy in this field gave the people at the heart of our community in UCD, clarity and comfort in knowing a return to fitness activity was being delivered by the University in a safe and strategic manner.

UCD Sport and Fitness produced an online platform whereby students and staff could take On-Demand Fitness Classes from the safety of their home. These classes reached over 16,000 gym users, located both in Ireland and abroad. In addition, UCD provided a free Outdoor Boot Camp for all employees, engaging over 100 staff. This platform was strategically designed to boost morale.

### Promoting Quality Assurance and Excellence in Governance

Reimagining how we engage as a University has overshadowed planned activity during 2019/20 as we refocused as an institution to continue to deliver on our core mission while maintaining and enhancing quality and good governance in our activity. The commitment of faculty, staff, and students in adapting to new ways of delivering learning, innovating, and engaging as a community has enabled the University to continue to lead and develop the four strategic themes of the UCD Strategy 2020-2024: Rising to the Future.

### Institutional Review

The University underwent its QQI institutional quality review in October and the Review Group report was published in April. The Review Group acknowledged that UCD has a robust and integrated quality assurance framework that supports effective and systematic quality assurance processes and ensures the rigorous evaluation of its teaching, learning and research, while maintaining its commitment to delivering a high-quality student focused experience along with a consistent student support provision. The Review Group also confirmed the University's position as a leading research university, its comprehensive approach to research monitoring, and benchmarking, as well as our quality framework for collaborative provision.

UCD's approach to institutional review has reflected the University's core values of excellence, creativity, integrity, collegiality, engagement, and diversity as evidenced in our self-assessment report preparation, site visit participation and response to the Review Group

recommendations. In June, the Governing Authority approved the Quality Improvement Plan which outlines the University's response to each of the Review Group recommendations. Implementation of these recommendations will be overseen by a Steering Group chaired by the Registrar, mirroring our commitment to ongoing reflection and enhancement of our activities.

We remain deeply committed to continuing to widen access and participation, and embedding equality, diversity and inclusion among staff and students across the University and within our quality framework and quality assurance activity. We continue to identify opportunities to review our quality framework, consolidate our business processes and use of data, and ensuring consistency on the implementation of our Researcher Career Framework.

### Quality Reviews

During 2019/20 quality review site visits took place in the UCD School of Music, UCD Applied Language Centre and UCD Registry. Due to the impact of COVID-19 site visits for UCD Teaching and Learning and the UCD School of Sociology were postponed and will be delivered remotely next year. As the designated awarding body of the National College of Art and Design, UCD will undertake a postponed institutional review of their quality procedures in May 2021. The annual periodic programme of quality reviews was launched in January however progression was affected due to COVID-19 restrictions. A hybrid approach to conducting reviews, site visits and follow-up will be implemented for the coming year and will create opportunity to adapt, develop, test, and enhance our quality processes and procedures while continuing to adhere to the European Standards and Guidelines, QQI Core Statutory Guidelines, relevant legislation, and UCD Policy on Quality Assurance and Quality Enhancement. Ongoing monitoring of quality improvement plans has continued cognisant of each unit's ongoing resourcing and activity.

### Policy Reviews

UCD completed several policy reviews during 2019/20. The University's Policy Management Framework, the overarching structure for approving and managing the policy portfolio of the University, was revised to accommodate rapid decision-making and changes to practice necessitated by the COVID-19 pandemic, and to ensure the University's procedures for developing and amending policy are appropriately configured to address future emergencies and exceptional circumstances. The University's Recognition of Prior Learning Policy was reviewed to ensure the policy was consistent with UCD's strategic objectives and reflected changes in national principles and guidelines, codes of practice and legislation and to ensure more effective audit and monitoring of decisions involving recognition of prior or concurrent learning. A review of the University's Continuing Professional Development Governance Framework is also underway.

### Governing Authority Self-Assessment

The University Secretariat supported the Governing Authority to undertake a self-assessment of its operation and effectiveness. A report based on this review demonstrated a high level of satisfaction with its effectiveness. Of particular note were high levels of satisfaction with the Governing Authority's formal process for setting strategy; the documentation of its role; the timely circulation of meeting material; the approval of codes of conduct and procedures for disclosing and managing potential conflicts of

## // UCD continued to raise awareness of the UCD Cultural Heritage Collection by digitising resources, developing exhibitions, building archives, and collaborating with national partners //

interest; the management of risk, internal control, and audit; that mechanisms are in place to assure Governing Authority's confidence in academic affairs and student services; and that the respective roles of the Chairperson of Governing Authority and the President of the University have been established and documented. As a result of this report, a set of eight recommendations were approved by the Governing Authority to ensure that specific and demonstratable actions are now taken to further improve performance.

### Academic Report to Governing Authority

The University Secretariat also supported the Registrar to develop an Academic Report to Governing Authority, based on information compiled by the Director of Institutional Research. This report presented an overview of UCD's academic performance during the 2018/19 academic session. It complements the Periodic Quality Review Reports that Governing Authority receives routinely and the President's Report which highlights the many achievements of the University including those relating to enhancements of the academic and wider student experience. This report demonstrated that against a backdrop of declining public funding per student and an increased student population, UCD has risen to the challenge and continued to improve the academic experience it provides. It also highlighted the key challenges encountered, the key risks identified, and actions which have been initiated as a result.

### Delivering Library, Information and Knowledge Management Services

#### UCD Library

The salient aspect of our Library's activities this year has been the acceleration of its engagement with digital transformation in responding to the circumstances of the COVID-19 pandemic. However, its operations and programmes remained constant in supporting an excellent student learning experience, to advancing research and to promulgating access to Irish cultural heritage.

UCD provides a broad range of resources in support of student learning, from reading space to print and digital collections, to staff expertise available by appointment, training sessions, and an array of online learning resources. Of note this year:

- Increased support of students during orientation and delivery of 278 hours of information and digital skills training;
- From mid-March, printed reading list materials became inaccessible due to the national 'lockdown', triggering an immediate effort to shift access to digital textbooks and e-books – an extraordinary challenge given that only 42% of assigned readings are available digitally;
- UCD Library, in cooperation with UCD Estate Services, quickly implemented measures to ensure it was available to support students and faculty effectively under the different levels of restrictions in place;

- UCD Library also inaugurated a new online chat service, as well as a booking system for readers to assure availability of study space and access to collections.

The acquisition and management of permanent collections evolved dramatically as well. In cooperation with a national licensing consortium, several major online resources were licensed with provisions for open access. These arrangements enable immediate access to research publications and thereby to meet funder requirements for open access. The Library also pursued its 'collections curation project', an effort to improve the quality of traditional collections by eliminating deprecated textbooks and filling gaps in research collections. In addition, it continued its project of RFID tagging library collections to facilitate borrowing and inventory control.

Support for research activities continued to develop and diversify. UCD Library collaborated with UCD Research and Innovation and UCD IT Services to model support for a Research Data Management (RDM) support programme. Training for researchers continued to diversify, ranging from RDM best practices, use of quantitative/qualitative data, use of geographic information services and more. UCD Digital Library, one of Europe's premier digital cultural heritage repositories, renewed its certification as a "trusted digital repository" from the CoreTrustSeal assessment framework, and added a range of new collections, including the 'Minor Harbours of Ireland Collection' and 'Sculptures in UCD', showcasing UCD's extensive collection of public art.

UCD continued to raise awareness of the UCD Cultural Heritage Collection by digitising resources, developing exhibitions, building archives, and collaborating with national partners. Some highlights include:

- Exhibitions, including the *War of Independence and Civil War Ephemera* exhibition; *Colm O Lochlainn: Printer, Publisher, Polymath: A New Mini-Exhibition*; and the *Diaries of John and Arthur Oram*;
- The *De Valera i Meiriceá*, a two-part TG4 documentary drawing on the de Valera's papers in UCD Archives as well as interviews with Principal Archivist Kate Manning;
- Launch of the *Ernie O'Malley Notebooks Transcription Project*, a joint undertaking of the Irish Manuscripts Commission, UCD Digital Library and UCD Archives;
- Launch of the *Liberties Cultural Association*, a collaborative oral history project involving the National Folklore Collection;
- The National Folklore Collection's *Dúchas* project continued in collaboration with Dublin City University, and some 73,000 manuscript pages from the collection were transcribed – a crowdsourcing activity accelerated by the conditions of the pandemic;
- New archival collections were established, including *Lockdown Poetry: Pandemic Collection* and the *Irish Arts Festivals Archive*.

UCD Library is also host to the *Irish Social Science Data Archive*, which has gained recognition by the Irish Research Council as the national service provider for the Consortium of European Social Science Data Archives.

UCD Library launched its Strategic Planning process for 2021-2024, and although disrupted by the public health emergency, it will resume in the Autumn.

Grants awarded to UCD Library include:

- National Folklore Collection UCD: €68,000 from the Broadcasting Authority of Ireland for the project *Digitisation of Acetate Disks*, led by NFC Director Críostóir Mac Cárthaigh;
- UCD Library: a grant from the National Forum for Teaching and Learning (€48,000), led by Peter Hickey, to create a Core Academic Integrity Model for plagiarism avoidance;
- UCD Library (Ursula Byrne, James Molloy and Alison Jameson), in collaboration with UCD Teaching and Learning: an award (€3,970) from the Learning Enhancement Projects Funding Scheme to support students harnessing digital technologies;
- The Irish Poetry Reading Archive: a grant, led by Ursula Byrne, from the Department of Foreign Affairs Emigrant Support Programme to support inclusion of diaspora poets' work in the Archive;
- Creative Commons (CC) Open Education Platform Activities Grant (US\$3,000), led by Associate Librarian Susan Reilly, to develop *Open Reading Lists @UCD: Phase One*.
- UCD Research Strategic and Major Initiatives Fund: grant awarded to UCD Archives (€49,000), led by Kate Manning, to catalogue Mulcahy Papers in preparation for digitisation and inclusion in UCD Digital Library.

### Information Technology, Solutions and Service

With the rapid transition to distance learning in March, UCD IT Services, in conjunction with UCD Teaching and Learning and the Educational Technology Advisory Network, created resources and guides, and ran webinars, workshops and clinics to provide additional support for faculty and students. As the University transitioned in the last year to the Brightspace virtual learning environment, it ensured that faculty and staff were familiar with the platform and its capabilities. As large-scale online assessment was also new, UCD IT Services and the Assessment team in UCD

Registry provided live online support for Module Coordinators for the duration of the scheduled examination period.

To support a streamlined Grade Approvals Process, this year we introduced a new suite of screens and reports. They will improve accuracy of grade entry, efficiency of audits, reduce processing time and enable faster release of results to students. With an ongoing public health crisis, the project was upgraded from pilot stage to full roll-out. The new screens and reports also provide an enhanced user experience with data analytics and visualisations available to support faculty with the online grade approval process.

In September we published a multi-year Cybersecurity Programme Plan with recent updates influenced by the move to remote working. The plan includes the development of IT policies and procedures, the deployment of a next generation firewall to protect our network from external cyber threats, multi-factor authentication to safeguard UCD IT accounts and access to critical University systems and a device protection strategy suitable for a remote working environment.

In February, Research IT coordinated an application led by Professor Adrian Ottewill, UCD College of Science to the UCD EQUIP Scheme. The successful €120k bid aimed to enhance the Artificial Intelligence (AI) capabilities of the IT Services High Performance Compute (HPC) Cluster 'Sonic' by providing additional Central Processing and Graphic Processing Units (CPU, GPU). The additional GPU resources will assist the progress and advancement of research in the areas of AI, Machine and Deep Learning for key groups and centres such as CeADAR, CONSUS and Insight. This upgrade was fortuitous with the increased demand on Research HPC since the COVID-19 move to remote working.



Pictured is Peadar Ó Fionnáin and family who gave the Féile na Bealtaine archive into the care of the Irish Arts Festivals Archive in UCD.

The University community has also been supported in adapting to working remotely. We provided platforms for virtual meetings, webinars for conference and seminar activity to 4,500 faculty, staff and graduate research students. To advance our telecommunications, a new voice and telephone system is being rolled out campus wide. This year the dedicated telephony network system was installed, and the implementation plan was adapted to COVID-19 restrictions with a focus on delivery of softphones to support remote working.

### Increasing Agility and Effectiveness

This year UCD continued to provide a variety of agile services to UCD schools, units and smaller teams including consulting sessions, training, project support and workshop facilitation. The support provided enhances UCD faculty and staff's professional and personal aims to reinforce organisational effectiveness.

### Training and Development

Providing training is a key mechanism for developing the skills, and supporting the culture, of continuous improvement. Throughout the year over 220 staff took part in UCD Agile's training programmes, including new offerings in change management, and working in the 'distributed office'. Trainees were involved in smaller, locally focused projects and availed of UCD Agile's project support and mentoring. Eight new important projects began in March and will run until November 2020, including work on the climate impact of travel, data protection assessments, Library archives and cataloguing, and research outputs.

### University Projects

As part of our continuing development of supports and services for students and faculty, the second phase of the Unified Support Model (USM) project in August 2020 completed in all 42 School and

College Offices, as well as UCD Registry, involving over 280 staff. The USM aims to ensure consistently high-level support services through providing the right systems, the development of staff, the integration of processes and services, and the use of the data arising in the continuous improvement of supports and services. In response to the challenges posed by COVID-19, the USM project provided an open forum for staff from across the 42 College, School, and central offices to come together to address new and emerging needs, driving consistent solutions, and supporting frontline staff. This kind of agility, creativity and focus on shared problem-solving under pressure is a key strength we have benefited from and will build further upon.

### Promotion of Agile practices

The Work Smarter Together (WST) community of practice saw the start of the new Project Management Community of Practice in October, with 295 attendees at WST's October and February sessions, and 111 at the July online Summer School. Hosting these events provide an opportunity to showcase new developments and celebrate recent achievements.

We continued to drive improvements in the student experience through the initiatives arising from the 2019 Student Experience Mapping Project (SEMP). Actions already in progress were reviewed and adapted for the COVID era, resulting in a suite of 20 initiatives to be delivered over the coming year. Responding to the challenges of COVID-19 was a significant focus: the implementation projects of the SEMP were used and adapted in shaping a suite of 20 student support initiatives; new short training offerings aimed at practical challenges arising through remote working were introduced; Agile overall training offerings went online and reached 120 of this year's 220 trainees since March; the USM rollout project created a collaboration, innovation and problem-solving forum for the 42



Pictured at the Work Smarter event are (l-r): Dr Olga Murdoch, UCD Agile Lead; Giuliana Rocca; Dimitrios Stavros-Kapetanakis; Ioanna Galeadi; Prof Mark Rogers, UCD Registrar and Deputy President; Nicola Fortune and John Wyatt.

College and School offices; and the Work Smarter Together Summer School in July focused on how to collaborate and innovate in our online context through training in some specific techniques.

### Widening Participation

One of the sources of data previously used for participation figures was the HEA Equal Access Survey data on socio-economic disadvantage. The HEA have amended their methodology, discontinuing use of the EAS socio-economic coding and replacing this with the HP Deprivation Index Score. Work is ongoing to accommodate this development and align the methodologies. This Report presents Access pathways and admissions data.

In 2019/20, 25.9% of places on undergraduate programmes in UCD were targeted for students using access pathways. Out of 4,013

places (excluding graduate-entry programmes and non-EU places), a total of 1,041 places were targeted for access cohorts. The table below shows the number of students who entered through our HEAR, DARE, Mature Years and QQI-FET pathways to full-time undergraduate degrees.

### Part-time Programmes

In 2019/20 we also had 213 Open Learning students taking undergraduate modules in UCD as well as 98 students on our University Access Programmes. In addition we provide a Lifelong Learning programme which offers students a unique opportunity to continue learning at their own pace, reflecting UCD's designation as an Age Friendly University. In 2019/20 1217 Lifelong Learning students engaged with this programme.

## Incoming Undergraduate Degree Students

	2015/16 entrants	2016/17 entrants	2017/18 entrants	2018/19 entrants	2019/20 entrants
<b>Under-represented entrants</b>	<b>769</b>	<b>742</b>	<b>744</b>	<b>887</b>	<b>985</b>
All Under-represented Groups: HEA Support only and other Progression Routes	375	378	410	450	479
All Under-represented Groups: HEA Support and Concession	394	364	334	437	506
<b>Mature entrants</b>	<b>291</b>	<b>258</b>	<b>248</b>	<b>242</b>	<b>254</b>
Mature Years HEA Support only	120	87	92	87	85
Mature Years HEA Support and Concession	171	171	156	155	169
<b>DARE entrants</b>	<b>235</b>	<b>251</b>	<b>262</b>	<b>335</b>	<b>380</b>
DARE HEA Support only	137	146	165	178	184
DARE HEA Support and Concession	98	105	97	157	196
<b>HEAR entrants</b>	<b>267</b>	<b>217</b>	<b>252</b>	<b>219</b>	<b>231</b>
HEAR HEA Support Only	140	117	148	90	90
HEAR HEA Support and Concession	127	100	104	129	141
<b>Other progression routes</b>	<b>98</b>	<b>98</b>	<b>104</b>	<b>185</b>	<b>229</b>
QQI-FET	97	98	104	181	217
HETAC	0	0	0	0	0
Other Progression	1	0	0	4	12
<b>Total UCD</b>	<b>4,499</b>	<b>4,569</b>	<b>4,564</b>	<b>4,408</b>	<b>4,600</b>

# RESEARCH, INNOVATION AND IMPACT



## Introduction from Vice-President for Research, Innovation and Impact

The past year has been an extraordinary one for research and innovation at UCD.

As the COVID-19 pandemic hit the country in March 2020, UCD researchers in relevant fields moved rapidly to respond: sending personnel and materials to the front line, supporting national testing and tracing efforts, participating in clinical trials with their international networks, advising Government, and developing research responses to all aspects of the pandemic. Details of these engagements can be seen on our website at [www.ucd.ie/research/covid19response/](http://www.ucd.ie/research/covid19response/).

Members of the UCD community can take enormous pride in the research response of the University, which was undertaken at a time when our faculty were also moving teaching and learning online at a very rapid pace and dealing in addition with the personal demands of the pandemic. Most of our research was interrupted very significantly during lockdown, but as restrictions were progressively eased research resumed on campus in a manner that was safe and effective.

Beyond COVID-19, research and innovation at the University proceeded across our usual broad base of projects. These projects populate all of the four themes under the UCD Strategy 2020-2024: Creating a Sustainable Global Society, Transforming through Digital Technology, Building a Healthy World and Empowering Humanity.

UCD researchers secured over €122 million in external research grants in 2019/20. This is now the third year in a row for which external research grants have exceeded €122 million, a figure that was a record for the University when first reached in 2017/18. A particular highlight of 2019/20 in research funding was EU funding, which was more than double the figure for the previous year, with a number of European Research Council awards and major collaborative projects in important topics such as trust in expertise, obesity and diabetes. This is an important time for EU research funding, with the arrival of the next funding programme Horizon

Europe and with changes post-Brexit, and it is important for UCD to establish a strong position.

UCD researchers won a number of major awards during the past year. Professor David Farrell won the Irish Research Council (IRC) Impact Award and Emeritus Professor Kathleen Lynch won the IRC Special Award for Equality and Participation. Professor Kevin O'Connor won the Science Foundation Ireland (SFI) Researcher of the Year Award, while Professor Liam Gallagher won the SFI Entrepreneurship Award.

2019/20 was a year of considerable progress for NovaUCD, with the completion of the east courtyard extension that has expanded its footprint by around 50%, and the award of funding to establish an AgTech Connector Innovation Hub at the UCD Lyons Farm in Co Kildare.

All of the achievements highlighted in this section are, as ever, a testament to the skill and dedication of our outstanding faculty, researchers and research support staff. That they occurred during a year that was so disrupted by the global pandemic adds still further to the magnitude of the achievement of all concerned. I remain enormously grateful to all who contribute to our research and innovation mission, in a year that has highlighted the extent of global reliance on the achievements of research.

**Professor Orla Feely**

UCD Vice-President for Research, Innovation and Impact

## Research Funding 2019/20

Externally funded research contracts registered during the year amounted to €122.3 million (Table 1). While this was down on last year's performance, that was an exceptional year that saw the renewal of some of our largest research centres, the total for 2019/20 was on a par with 2017/18, which is an excellent performance. The awards are broken down by funder in Table 1 and full details of the largest awards are shown in Table 2.

Science Foundation Ireland (SFI) remains the largest funder of external research grants in UCD, closely followed by the European Commission. European Commission awards registered in 2019/20

amounted to just over double the amount from this source last year. This is very significant given the strategic importance of this funding. Towards the end of 2019/20 UCD received 22 awards from SFI and the Health Research Board (HRB) under the Joint COVID-19 Rapid Response Calls, amounting to €2.4 million.

### Research Publications

Details of all research publications for the period of the Report are available online at [www.ucd.ie/research/publications](http://www.ucd.ie/research/publications)

Table 1: Research Awards

Year	Total value contracts signed incl. contributions to overheads (€ million)	Total contributions to overheads (%)	Total number of contracts awarded	Number of proposals submitted
2007/2008	115.9	17.3	445	1,090
2008/2009	116.8	21.0	537	1,150
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	97.50	12.3	661	1,336
2017/2018	122.38	17.3	706	1,411
2018/2019	151.04	20.5	607	1,354
2019/2020	122.34	16.1	737	1,468

Funding source 2019/20	Number of contracts	Value (€ million)
Science Foundation Ireland (SFI)	91	29.97
European Commission (EC)	56	28.28
Irish Research Council (IRC)	128	8.52
Enterprise Ireland (EI)	115	13.14
Department of Agriculture, Food & The Marine	25	9.98
Others	322	32.45
<b>Total</b>	<b>737</b>	<b>122.34</b>

Table 2: Largest Grants Awarded to UCD 2019/20

Leader	Funding source	Programme	Title	Total direct costs €
Professor Ronan Cahill, UCD School of Medicine	Enterprise Ireland (EI)	Disruptive Technologies Innovation Fund (DTIF)	The Future of Colorectal Cancer Diagnosis and Treatment: Combining Tissue Responsive Probes AI and Machine Learning to Transform Medical Care	2,320,721
Professor William Gallagher, UCD School of Biomolecular and Biomedical Science	Science Foundation Ireland (SFI)	Research Infrastructure	National Preclinical Imaging Centre	2,012,170
Professor Gerardine Meaney with Dr Derek Greene, UCD School of English Drama and Film and UCD School of Computer Science	HORIZON 2020	ES – ERC Advanced Grant	European Migrants in the British Imagination: Victorian and Neo-Victorian Culture (VICTEUR)	1,998,501
Professor Fengzhou Fang, UCD School of Mechanical and Materials Engineering	Science Foundation Ireland (SFI)	Research Infrastructure	Ultra-precision Multi-functional Freeform Manufacturing Infrastructure for Innovative Medical Devices and Implants	1,938,950
Professor Wenxin Wang, UCD School of Medicine	Enterprise Ireland (EI)	Disruptive Technologies Innovation Fund (DTIF)	A Disruptive Gene Therapy Platform Replacing Viruses in the Treatment of Genetic Conditions	1,703,892
Professor Eoin Carolan, UCD School of Law	HORIZON 2020	ES – ERC Consolidator Grant	The Foundations of Institutional AuThORITY: A multi-dimensional model of the separation of powers (FIAT)	1,598,102
Professor Carel Le Roux with Dr Deirdre McGillicuddy and Dr Fiona McGillicuddy, UCD School of Medicine and UCD School of Education	Innovative Medicines Initiative Joint Undertaking (IMI JU)	Joint Technology Initiatives (JTI)	Stratification of Obese Phenotypes to Optimize Future Obesity Therapy (SOPHIA)	1,306,886
Professor Rory Johnson, UCD School of Biology and Environmental Science	Science Foundation Ireland (SFI)	Future Research Leaders (FRL)	Discovering non-protein-coding vulnerabilities in lung cancer with CRISPR-Cas9	1,246,311
Dr Amy Strecker, UCD School of Law	HORIZON 2020	ES – ERC Starting Grant	Land Property and Spatial Justice in International Law – PROPERTY [IN]JUSTICE	1,200,000
Dr Fionnuala Murphy, UCD School of Biosystems and Food Engineering	HORIZON 2020	ES – Marie Skłodowska-Curie Innovative Training Network (ITN)	A Disruptive Innovative Cooperative Entrepreneurial (DICE) education training and skills development programme rolling out the next generation of Agri Biorefinery and Valorisation Bioeconomy leaders (AgRefine)	1,177,817

Leader	Funding source	Programme	Title	Total direct costs €
Dr Sharleen O'Reilly, UCD School of Agriculture and Food Science	HORIZON 2020	SC1 – Health demographic change and wellbeing	Implementation Action to prevent Diabetes from Bump 2 Baby (IMPACT DIABETES B2B): a low-resource system of care intervention for appropriate gestational weight gain and improved postnatal outcomes (IMPACT DIABETES B2B)	1,167,324
Professor Wim Meijer, Professor John O'Sullivan and Professor Gregory O'Hare, UCD School of Biomolecular & Biomedical Science, UCD School of Civil Engineering and UCD School of Computer Science	EC – European Regional Development Fund (ERDF)	INTERREG VA – Ireland Wales	ACCLIMATIZE	1,053,957
Dr Riona Nic Congáil, UCD School of Irish, Celtic Studies and Folklore	HORIZON 2020	ES – ERC Starting Grant	Youth Engagement in European Language Preservation 1900-2020 (YEELP)	1,023,408

Head of UCD School of Politics and International Relations, Prof David Farrell receiving the Irish Research Council Impact Award from President Michael D Higgins, at the 2019 IRC 'Researcher of the Year' Awards, for his significant contributions to research on electoral systems and the politics of representation in democracies.



# €20m

awarded to UCD's researchers from internal sources

## Seed Funding

UCD invests significantly in directly supporting research within the University. In 2019/20, the amount awarded to UCD's researchers from internal sources was €20 million.

One of the main schemes for internal support of research is the Seed Funding Scheme, whose strands cover Dissemination and Outputs, Equality, Diversity and Inclusion, Visiting Professors, and Career Development Awards. As shown in Table 3, 115 awards were made under the Seed Funding Scheme in 2019/20, to a total of €300,000.

## UCD EQUIP Scheme

Another major internal funding scheme is the UCD EQUIP Scheme, which ran for the second time in 2019/20. The Scheme provides funding for research equipment that will support excellent research and innovation by a broad base of UCD researchers. Sixteen awards amounting to just over €1.9 million were made, as shown in Table 4.

# 16

awards amounting to just over €1.9 million were made under the UCD EQUIP Scheme

**Table 3: UCD Seed Funding Scheme**

2020 Seed funding by programme	Volume of applications	Value of applications €	Volume of awards	Value of awards €
Dissemination & Outputs	262	469,378	82	100,001
Equality, Diversity & Inclusion Strand A	31	259,263	3	15,000
Equality, Diversity & Inclusion Strand B	11	31,097	3	5,000
Visiting Professors – Incoming & Outgoing	15	184,669	8	50,000
Career Development Award	95	1,147,526	19	129,999
<b>Grand total</b>	<b>414</b>	<b>2,091,933</b>	<b>115</b>	<b>300,000</b>

2020 Seed funding by College	Volume of applications	Value of applications €	Volume of awards	Value of awards €
College of Arts & Humanities	17	79,435	9	26,629
College of Business	12	51,977	3	2,871
College of Engineering & Architecture	98	441,263	25	74,361
College of Health & Agricultural Sciences	95	620,670	25	65,809
College of Science	122	484,146	30	71,795
College of Social Sciences & Law	69	412,736	23	58,536
Vice President Research Innovation & Impact	1	1,706	0	0
<b>Grand total</b>	<b>414</b>	<b>2,091,933</b>	<b>115</b>	<b>300,000</b>

Table 4: UCD EQUIP Programme

Lead applicant	Applicant team	College	School	Amount approved €	Equipment item
Amanda McCann	Prof Lorraine Brennan, Assoc Prof Ibert Smolenski, Assoc Prof Oliver Blacque, Assist Prof Niamh O'Sullivan, Assist Prof Eoin Brennan, Assist Prof Carol Aherne, Assist Prof Stephen Thorpe, Assist Prof Lynne O'Shea, Assist Prof Pamela Kelly, Prof Desmond J. Tobin	College of Health and Agricultural Sciences	School of Medicine	65,000	Cryogenic Storage (Liquid Nitrogen) System. (Dewars, Bulk Tanks, Inventory)
Anding Zhu	Prof Robert Bogdan Staszewski, Assoc Prof Elena Blokhina, Prof Madeleine Lowery, Assoc Prof Stephen Redmond, Assoc Prof Aisling Ní Annaidh, Prof Lorraine Hanlon	College of Engineering and Architecture	School of Electrical & Electronic Engineering	163,097	LPKF ProtoLaser S4 Milling Machine
Catherine Godson	Prof Gerry Wilson, Assoc Prof Albert Smolenski, Assoc Prof Tara McMorrow, Prof William Watson, Prof Cormac Taylor, Assist Prof Niamh O'Sullivan, Assist Prof Yan Yan, Assist Prof Stephen Thorpe	College of Health and Agricultural Sciences	School of Medicine	90,000	Biosafety cabinets BSL 2 X 4 CO <sub>2</sub> Incubators X 10 Bright field, fluorescent Inverted Microscope and camera for cell culture observation X 4
Ciaran McNally	Assoc Prof Elizabeth Shotton, Assoc Prof Vikram Pakrashi, Assist Prof Jennifer Keenahan, Assist Prof Oliver Kinnane	College of Engineering and Architecture	School of Civil Engineering	144,331	Portal frame – structural testing platform
Cormac Taylor	Prof Paul McLoughlin, Prof Ulla Knaus, Assoc Prof Siobhán McClean, Prof Geraldine Butler, Assist Prof Eoin Cummins, Assist Prof Sergio Rey, Assist Prof Luana Schito, Adj Assoc Prof Silke Ryan, Assoc Prof Margaret McGee	College of Health and Agricultural Sciences	School of Medicine	113,000	Hypoxia Chambers x 2
David Brayden	Prof Cormac Taylor, Assist Prof Alison Reynolds, Assist Prof Sinead Ryan, Assoc Prof Eoin O'Cearbhaill, Prof Des Winter, Assoc Prof Deirdre Campion, Prof Torres Sweeney, Assoc Prof Siobhan McClean, Assist Prof Colm Collins, Prof Desmond Tobin	College of Health and Agricultural Sciences	School of Veterinary Medicine	90,000	Diffusion chamber systems for measuring drug fluxes across tissues from human and animal species: Ussing chambers and Franz Cells (A "One Health" Application)
Declan Gilheany	Prof David Brayden, Prof Eileen Gibney, Prof Elaine O'Reilly, Dr Eoghan McGarrigle	College of Science	School of Chemistry	225,000	Ultra-High Performance Liquid Chromatography (UHPLC)
Adrian Ottewill	Assist Prof Andrew Hines, Assist Prof Catherine Mooney, Assist Prof Daniel Hurley, Prof Emma Teeling, Assist Prof Georgiana Ifrim, Assist Prof Kathleen Curran, Prof Madeleine Lowery, Prof Niall English, Assoc Prof Philip Cardiff, Prof Séamus Fanning, Assoc Prof Vladimir Lobaskin	College of Science	School of Mathematics & Statistics	119,996	UCD "Sonic" HPC Cluster

Lead applicant	Applicant team	College	School	Amount approved €	Equipment item
Frank McDermott	Prof J. Stephen Daly, Assoc Prof Barry Molloy, Assist Prof Jessica Smyth, Dr Weimy Xu	College of Science	School of Earth Sciences	50,000	Upgrade and replacement of redundant ion detectors in the ThermoFisherScientific Neptune inductively-coupled plasma mass spectrometer
Kenneth Dawson	Assoc Prof Oliver Blacque, Prof Enda Cummins, Prof Wim Meijer, Assit Prof Susan Kelleher, Assist Prof Yan Yan, Assoc Prof Susan Quinn, Assist Prof Demetra Achilleos, Prof Gareth Redmond	College of Science	School of Chemistry	74,141	Zetasizer Ultra DLS
John O'Doherty	Prof Kevin McDonnell, Prof Tommy Boland, Dr Finbar Mulligan, Dr Karina Pierce, Dr Bridget Lynch, Dr Helen Sheridan	College of Health and Agricultural Sciences	School of Agriculture & Food Science	64,801	LECO Protein Analyser
Alex Evans	Prof Tommy Boland, Prof Mark Crowe, Assoc Prof Trudee Fair, Assist Prof Bridget Lynch, Prof Kevin McDonnell, Assoc Prof Karina Pierce, Assist Prof Helen Sheridan	College of Health and Agricultural Sciences	School of Agriculture & Food Science, Lyons Farm	70,000	Five pieces of essential farm equipment – Tractor, Diet Feeder, Slurry Spreader, Zero Grazer, Loading Shovel
Michael Keane	Assist Prof Carol Aherne, Prof Lorraine Brennan, Assoc Prof Neil Gerard Docherty, Assoc Prof Trudee Fair, Prof Breandán Kennedy, Prof Paul McLoughlin, Assoc Prof Eoin O'Cearbhaill, Assit Niamh O'Sullivan, Prof Desmond Tobin	College of Health and Agricultural Sciences	School of Medicine	161,412	Tissue Processing Histology Core
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 Elaine O'Reilly, Assist Prof Sharon O'Rourke, Assist Prof Chandralal Hewage	College of Science	School of Chemistry	399,750	NMR Spectrometers
Terence O'Donnell	Prof Andrew Keane, Prof Federico Milano, Assoc Prof Damian Flynn, Assist Prof Eoin Syron, Assist Prof Nan Zhao	College of Engineering and Architecture	School of Electrical & Electronic Engineering	68,000	Power amplifier/Grid Emulator for Power Hardware in Loop Testing
Sharon O'Rourke	Prof Colm O'Donnell, Prof Aoife Gowen, Prof Nicholas Holden, Prof Kevin McDonnell, Dr Julio Isidro Sánchez, Dr Magdalena Necpalova, Dr Colman Gallagher, Dr Ainhoa Gonzalez Del Campo, Dr Sónia Negrão, Dr Soumyabrata Dev	College of Engineering and Architecture	School of Biosystems & Food Engineering	98,583	Visible – near infrared Spectroradiometer

### UCD Output Based Research Support Scheme (OBRSS)

The Output Based Research Support Scheme (OBRSS), another internal research funding scheme, was developed in recognition of the fact that many of the day-to-day costs of research activity are not covered by research grants. The scheme disburses research support funds to faculty based on their research outputs, as captured through publications and PhD supervision. During the past year, 892 faculty were awarded support funds through OBRSS. Details are shown in Table 5.

**Table 5: Output Based Research Support Scheme**

College	Volume of Awards	Value of Awards €
College of Arts and Humanities	94	63,737
College of Business	51	35,383
College of Engineering and Architecture	106	156,275
College of Health and Agricultural Sciences	237	300,368
College of Science	211	218,413
College of Social Sciences and Law	184	164,292
Other	9	6,856
<b>Grand total</b>	<b>892</b>	<b>945,324</b>

### Research Analytics and Impact

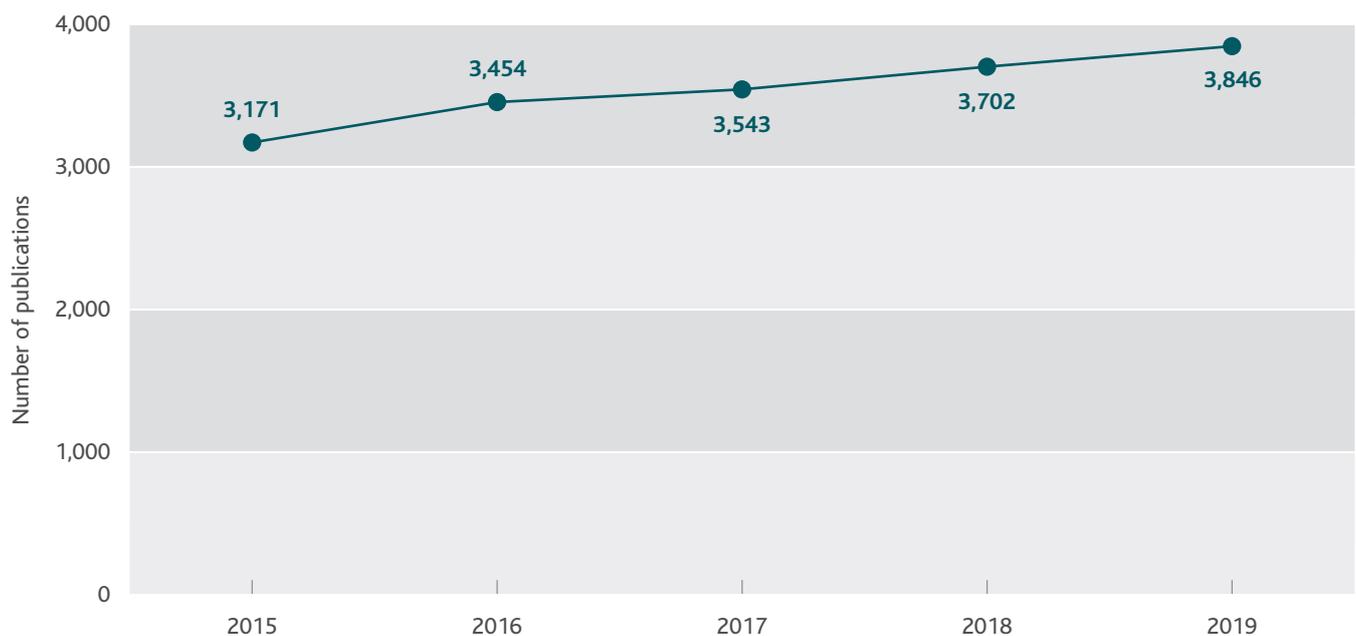
#### Publication Metrics

In 2019, there were 3,846 papers listed in Elsevier SciVal for UCD (see Figure 1). Although the coverage in this data does not reflect the totality of UCD's research outputs (5,622 publications for the year), this is an important metric. On aggregate, UCD has produced the highest volume of academic publications in the country over the past fifteen years.



UCD undergraduate students participating in PwC Challenge Day 2020 as part of their undergraduate elective modules.

**Figure 1: Number of UCD publications recorded in SciVal per year**



Source: Elsevier Scopus/SciVal (accessed 9 October 2020)

### Academic Impact

Field-Weighted Citation Impact (FWCI) 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. An FWCI score 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 cited 75% more than the world average. During the past five years, 17% of UCD’s publications were in the top 10% of the most cited worldwide. In addition, 61% of the publications were co-authored with institutions in other countries, emphasising UCD’s position as a global university.

### Societal Impact

The Research Impact Case Study Competition builds capacity throughout UCD in capturing research impact. It encourages all researchers, regardless of discipline, to consider and celebrate the societal impact of their work.

This competition offers researchers at UCD an opportunity to develop a short written case study, with illustrative images, highlighting the impact of their research to an external, non-specialist audience. The winning case studies from the 2019 competition can be seen on the UCD Research Impact website. The overall winner was Professor Emilie Pine, UCD School of English, Drama and Film, for her case study, ‘Communicating the legacy of child abuse and helping victims heal.’

### 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 organised our research over recent years within six priority themes:

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

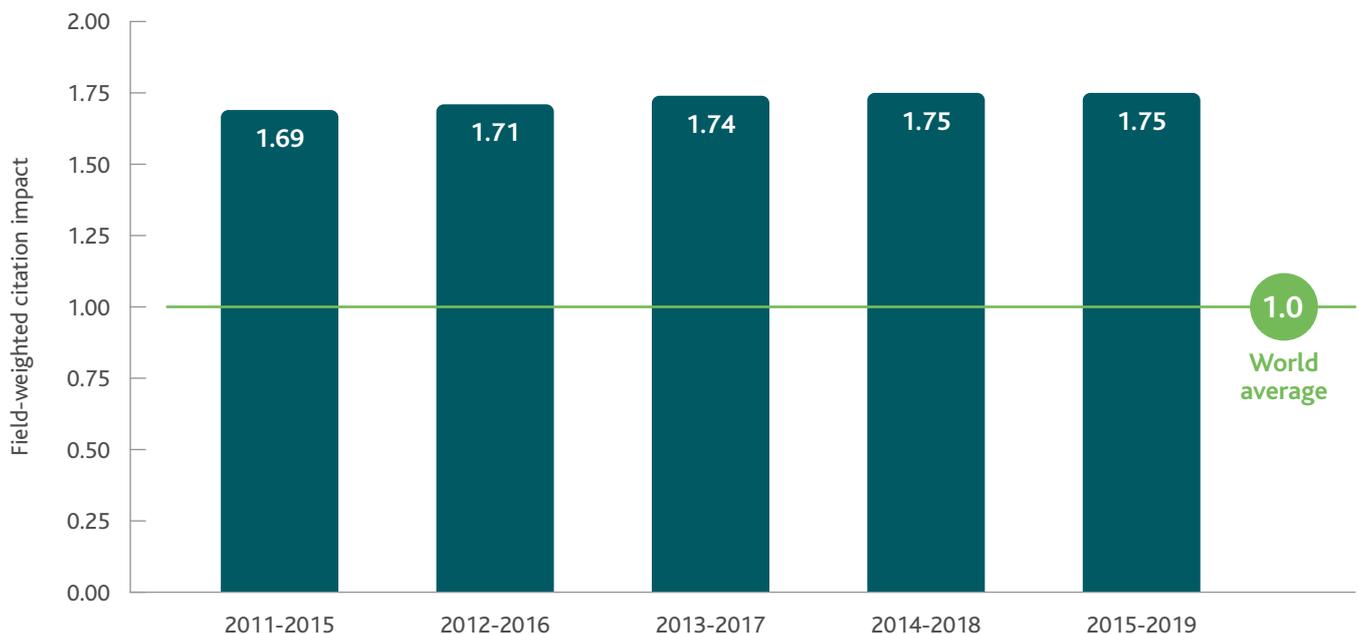
From 2020/21, these will be replaced the University’s four new strategic themes under the UCD Strategy 2020-2024, Rising to the Future.

#### Agri-Food

The agri-food sector is Ireland’s largest indigenous industry and at the forefront of our response to some of the most pressing global challenges. The sustainability of the food chain, from producer to consumer, is the biggest challenge facing the sector. Sustainable agriculture and food systems will require diversification, resilience and a whole system approach, and UCD is helping to build a strong national research and innovation ecosystem to support primary producers, SMEs and multinationals to attain these objectives.

Through our expertise in animal science and veterinary medicine, UCD is working with industry to create ‘farms of the future’ where smart and precision agriculture practices will greatly increase production and reduce waste. Together, the sector will ensure sustainability and global competitiveness, to develop safe, novel foods and promote human health.

Figure 2: Field-Weighted Citation Impact per 5-year period



Source: Elsevier Scopus/SciVal (accessed 9 October 2020)

### Agri-Food Highlights

UCD's agri-food leaders continued to make their mark nationally and globally in academia, industry and policy. Director of UCD Institute of Food and Health, Professor Dolores O'Riordan was appointed to the Department of Agriculture, Food and the Marine's Stakeholder Committee for Ireland's Agri-Food Strategy to 2030 (see more from UCD Institute of Food and Health on page 50). Professor Kevin O'Connor, Director of BiOrbic SFI Bioeconomy Research Centre at UCD and member of the European Commission Mission Board for Climate Change Adaptation including Societal Transformation – also contributed via DAFM's 'Open Policy Debate' in October 2019.

Professor O'Connor and Assistant Professor Fionnuala Murphy (also BiOrbic) progressed to the seed phase of the 2019 SFI Future Innovator Prize Zero Emissions Challenge. The 'Farm Zero C' project, in partnership with Carbery and others, aims to create the world's first carbon-neutral resilient dairy farm.

UCD was very successful in the DAFM 2019 Competitive Call for Research, which funded 38 research projects totalling €20 million. Professor John O'Doherty received the largest award (€1.25 million) for 'PigNutriStrat – Novel nutritional and management strategies to reduce antimicrobial reliance and antimicrobial resistance on Irish pig farms'.

Professor Paula Bourke, UCD School of Biosystems and Food Engineering, is co-lead on the €4.5 million project 'Plasma-based therapies for bone infection' with Queen's University Belfast and Jefferson University, USA. Funded by the US-Ireland Research and Development Partnership, the project has the potential to significantly impact how bone infections are treated following orthopaedic surgery.

Three UCD researchers received ca. €1.5 million each in the SFI President of Ireland Future Research Leaders awards. One was Assistant Professor Sónia Negrão, with a grant to develop sustainable barley production strategies using advanced genomics and artificial intelligence.

UCD's agri-food researchers also secured significant EU funding, including: Professor Sharleen O'Reilly, leading a €4.4 million Horizon 2020 (H2020) implementation project 'IMPACT DIABETES B2B' to improve mother and baby health in the first one thousand days; Professor Kevin McDonnell leading 'LIFE farm4more', a €5.5 million agricultural pilot which is the first Irish-led LIFE Climate Action project to achieve climate mitigation in animal protein production; and Associate Professor Eileen Gibney, who is a partner on the €11 million H2020 project 'FNS-Cloud', to create a cloud solution that helps the food industry reduce costs and increase sustainable production, and helps consumers make informed, healthy choices.

// Head of UCD School of Politics and International Relations, Professor David Farrell was elected Chair of the European Consortium for Political Research – the first Irish person elected to the role //

# 38

research projects totalling €20 million were funded through the DAFM 2019 Competitive Call for 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

Professor Gerardine Doyle, UCD College of Business, was appointed as President of the European Institute of Advanced Studies in Management (EIASM). Founded in 1971, EIASM is a multidisciplinary network for researchers and doctoral students in management with over 50,000 management scientists from across Europe. Co-Director of UCD Centre for Business and Society, Professor Donna Marshall was appointed as the first Irish President of the International Purchasing and Supply Education and Research Association. Meanwhile, UCD Michael Smurfit Graduate Business School's Masters in International Management has been ranked Top 10 (8th) in the world in the prestigious Financial Times Masters in Management rankings for the third year in a row.

Head of UCD School of Politics and International Relations, Professor David Farrell was elected Chair of the European Consortium for Political Research – the first Irish person elected to the role. Professor Farrell also received the Impact Award at the 2019 Irish Research Council Researcher of the Year Awards for his significant contributions to research on electoral systems and the politics of representation in democracies. The IRC also made a special award to Professor Emeritus Kathleen Lynch for her contribution over many decades to equality and participation. Professor Emeritus Maeve Conrick was appointed as a Lay Member to the Judicial Conduct Committee. The Judicial Council, established in December 2019, is an independent body whose members are Ireland's judges and who constitute a separate and independent branch of Government.

Constitutional law expert Professor Eoin Carolan was awarded a €2 million ERC Consolidator Grant to investigate how separation of powers systems are being affected by current social and political trends. Shock political results such as the Brexit 'Leave' vote point to an increasing loss of faith in traditional institutions and political leaders. This research will examine how our constitutional models should change to meet this challenge.

Director of UCD Centre for War Studies, Professor Robert Gerwarth was awarded the 2020 Reimar Lüst Prize by the Alexander von Humboldt Foundation. The €60,000 prize recognises the lifetime achievement of international humanities scholars and social scientists who have made an exceptional contribution to the

promotion of bilateral relations between Germany and their own country of residence.

Professor Emilie Pine, UCD School of English, Drama and Film, won first prize in the 2020 UCD Research Impact Case Study Competition. Her case study, 'Communicating the legacy of child abuse and helping victims heal', showcased research combining humanities-led inquiry and digital technologies to produce new knowledge of the scale and complexity of institutional abuse. Her work has also helped victims heal, especially through *Survivor's Stories*, a project strand that preserves the memories of victims of abuse, housed in the National Folklore Collection at UCD.

Director of the UCD Centre for Cultural Analytics, Professor Gerardine Meaney, was awarded an ERC Advanced Grant of €2.5 million for a study focused on migration and culture. An expert on the application of new digital methodologies to humanities research, Professor Meaney will work with Dr Derek Greene, UCD School of Computer Science, to address a key unanswered societal question of how migration impacts on cultural identity of both migrant and host communities in the historical long-term.

Launched last September, the Museum of Literature Ireland (MoLI) is a historic collaboration between UCD and the National Library of Ireland and showcases treasures from the State's literary collections, as well as contributions from our own UCD Special Collections and the National Folklore Collection. The museum has been supported by the Naughton Foundation and Fáilte Ireland.

## // Professor Emilie Pine, UCD School of English, Drama and Film, won first prize in the 2020 UCD Research Impact Case Study Competition //



Prof Orla Feely (left) and Prof Emilie Pine, winner of the 2020 UCD Research Impact Case Study Competition, with UCD President Prof Andrew Deeks.



Prof Orla Feely (left) and 'My World Survey' team Assoc Prof Amanda Fitzgerald, Prof Barbara Dooley and Dr Clíodhna O'Connor, first runners-up of the 2020 UCD Research Impact Case Study Competition, with UCD President, Prof Andrew Deeks.

### Energy and Manufacturing

UCD is 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. UCD researchers analyse the economics and the behavioural science around energy choices, enable the policy framework to promote efficient and sustainable energy use, and drive the emergence of new energy enterprises. The University partners extensively with energy companies 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 UCD College of Engineering and Architecture is aligning its strategy to address challenges in this field.

#### Energy Highlights

Energy is vital to every aspect of our economy and society but also contributes significantly to our greenhouse gas emissions and to climate change. There are significant challenges in reducing the environmental impact of energy usage, while at the same time maintaining the standards of living which we have come to expect. UCD remains committed to the decarbonisation of the energy system while maintaining a reliable and secure energy supply for all citizens and industry, principally through the work of UCD Energy Institute (see more from the Institute on page 50).

#### Manufacturing Highlights

I-Form, the SFI Research Centre for Advanced Manufacturing was launched in 2018 and continues to grow with over 30 academics and 55 researchers in place. In addition to its core research, the Centre is working on 25 industry co-funded target projects aimed at optimising materials processing through the use of digital tools such as process modelling and data analytics. Technology focus

areas include additive manufacturing, surface engineering, precision manufacturing and process digitisation using sensor technology and machine learning.

I-Form was a co-founding member of the €400 million European Institute of Innovation and Technology (EIT) Manufacturing knowledge and innovation community in 2019 and has secured over €320,000 in funding for year one of the programme for four projects. These include: PERFORM (a cyber-physical additive manufacturing training system); LEAFOX (Learning Factory in a Box, aimed at changing the image of manufacturing in schools); DEEPINC (a European network of incubators offering start-ups and SMEs the appropriate ecosystem to increase their technology expertise in advanced manufacturing); and M-MASTER (a pan-European MSc in advanced manufacturing).

I-Form was awarded over €500,000 in COVID-19 Rapid Response funding for six projects – see the special report on COVID-19.

### 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 major global problems.

### Environment Highlights

iCRAG, the SFI Research Centre for Applied Geosciences has accelerated its environmental research to include advances in monitoring groundwater pollution and the siting of offshore wind farms. Furthermore, the addition of a new PhD programme in Environmental Geosciences, in collaboration with Geological Survey Ireland, is contributing to the wider impact of the Centre across natural hazards and submarine landslides.

As part of the US-Ireland Centre-to-Centre funding mechanism, iCRAG researchers in UCD are embarking on an ambitious multi-partner project with colleagues in Queen's University Belfast and Arizona State University to develop bio-based methods for waste encapsulation. Working with global industry partners, the Centre continues to enhance exploration for the critical materials and metals needed for the green transition to a decarbonised future by 2050.

Professor Wim Meijer, Head of UCD School of Biomolecular and Biomedical Science, was awarded over €1 million in Phase II Interreg funding for three additional work packages in the Ireland-Wales collaboration Acclimatize. The project, led jointly by Professor Meijer and Professor David Kay (Aberystwyth University), bridges the knowledge gap in relation to pollution of at-risk urban and rural bathing waters.

See more environmental research highlights from UCD Earth Institute on page 50.

### Health

UCD is looking to the future of healthcare, where new therapies, technologies and devices emerge from the symbiosis of technology

# €2.5m

ERC Advanced Grant awarded to Professor Gerardine Meaney, Director of the UCD Centre for Cultural Analytics for a study focused on migration and culture

# €500,000

awarded to I-Form in COVID-19 Rapid Response funding for six projects

# €10m

awarded to Precision Oncology Ireland from SFI. UCD is the lead academic partner in this unique consortium.

and biology. The University's 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. Another priority area for UCD, OneHealth focuses on infectious and rare diseases and considers animal as well as human health.

UCD is also leading 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. In particular, working with Ireland's largest academic hospital network, the Ireland East Hospital Group (IEHG), provides unique opportunities for translation and implementation.

### Health Highlights

UCD leads the field in Precision Medicine and won a major investment boost in the last year in the form of €10 million funding from SFI for Precision Oncology Ireland (POI), headed by Professor Walter Kolch, UCD School of Medicine and Systems Biology Ireland. The unique consortium of five Irish universities, including UCD as the lead academic partner, six Irish cancer research charities and ten companies will create new diagnostics and therapeutics for cancer patients using personalised medicine methodologies.

Obesity is a global pandemic currently affecting around 150 million people in Europe and 650 million people worldwide, and UCD continues to lead in obesity research. The University is leading SOPHIA (Stratification of Obese Phenotypes to Optimize Future Obesity Therapy), a new €16 million EU and industry-

supported international research consortium launched in June 2020. Professor Carel le Roux, an obesity physician at the UCD Diabetes Complications Research Centre and UCD Conway Institute, is coordinator of the consortium. The project, which includes 29 partners from civil society, academia and industry in twelve countries, aims to improve risk assessment of complications of obesity and predict treatment response for people with obesity.

Researchers in the UCD Diabetes Complications Research Centre and their international collaborators identified sixteen regions of the human genome linked with diabetic kidney disease (DKD), the leading cause of kidney disease that can end in organ failure. The team in UCD Conway Institute, led by Professor Catherine Godson and Dr Eoin Brennan, collaborated with colleagues in Queen's University Belfast, the Broad Institute and Harvard Medical School and University of Helsinki to complete a genome-wide association study. It is the largest ever study carried out to look at the genetics of DKD.

Professor Lorraine Brennan was awarded a US-Ireland grant of €889,104 from the HRB for 'Food-Based Biomarkers, Diet Quality and Cardiometabolic Health.' The project will identify new biomarkers for the intake of specific foods, examine them in relation to coronary heart disease in US patient groups, and evaluate the efficacy of using food biomarker information to help improve diet quality in a personalised nutrition trial. The research team consists of multiple groups of investigators in the US, Ireland, and Northern Ireland.

UCD had another SFI President of Ireland Future Research Leaders award-winner in the field of health. Associate Professor Rory Johnson received over €1.5 million to explore non-protein-coding vulnerabilities in lung cancer with CRISPR-Cas9. The project aims to discover new types of genes that promote lung cancer, develop drugs to inhibit their activity and thereby kill tumours.

UCD is host to some of Ireland's leading researchers in the field of infectious diseases, especially in the UCD Centre for Experimental

Pathogen Host Research, UCD Centre for Clinical Research and the National Virus Reference Laboratory at UCD. The work of these experts became critical to the country's response to the pandemic nationally and globally – see the special report on COVID-19.

## ICT

ICT research at UCD advances knowledge and delivers highly trained researchers in fields such as data analytics, artificial intelligence (AI), Internet of Things engineering, 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

CeADAR, Ireland's Centre for Applied AI, based at UCD and in partnership with TU Dublin, secured €12 million in renewal funding from Enterprise Ireland, matched by €16 million in funding from industry and competitive sources. The funding will enable the Centre to scale up to meet growing demand from Irish industry for support in adopting AI technologies, and to accelerate the development and deployment of AI, data analytics and machine learning.

UCD won funding from the Government's Disruptive Technologies Innovation Fund (DTIF), with four projects totalling €16.9 million. In the ICT space, these included Quantum Computing in Ireland (QCoIr), a software platform for multiple qubit technologies to explore their potential in addressing challenging problems arising in areas such as financial services, logistics and drug discovery. Also Transpire, an AI platform for regulation that combines human expertise with artificial intelligence to demystify laws and regulations. The project consortium for the latter includes Dr David Lillis, UCD School of Computer Science and CeADAR, lead partner Corlytics, a NovaUCD graduate company headquartered at NexusUCD, and Singlepoint Solutions.

The Centre for Research Training (CRT) in Foundations of Data Science was funded in July 2020, launching a new PhD programme that will benefit 139 PhD students with a world-class foundational



Pictured (l-r) at an event held at NovaUCD to announce the projects funded under the second round of the Disruptive Technologies Innovation Fund are; Senator Regina Doherty, (former Minister for Employment Affairs and Social Protection); Heather Humphreys, TD, (former Minister for Business, Enterprise and Innovation); Julie Sinnamon, CEO, Enterprise Ireland and Dr Nicky Bertollo, CEO, Latch Medical.

# €16.9m

## in funding won from the Government's Disruptive Technologies Innovation Fund (DTIF)

understanding of applied mathematics, statistics and machine learning. The funding represents a €21 million investment from SFI, academic institutions and industry – a large-scale collaborative initiative between UCD, University of Limerick, Maynooth University and industry partners, and is coordinated by Skillnet Ireland and Technology Ireland ICT Skillnet. The programme will furnish students with the skills they need for the jobs of the future in areas such as data analytics, robotics and smart manufacturing.

In February, EIRSAT-1 – the UCD project designing and building Ireland's first satellite – saw the payloads of its novel gamma-ray detector (GMOD), in-flight performance monitor (EMOD) and antenna deployment module qualified for space flight. In the last year, the payloads have been subject to environmental testing at the European Space Agency CubeSat Support Facilities in Belgium. The project is a collaboration between UCD School of Physics, UCD School of Mechanical and Materials Engineering, UCD School of Mathematics and Statistics, UCD School of Computer Science and Irish company ENBIO.

### UCD Research Institutes

In addition to contributing across the priority research areas outlined above, the University's research institutes deliver cross-cutting programmes and events to further enhance the knowledge base, research ecosystem and impact of UCD, some of which are outlined in the following pages.

### UCD Conway Institute for Biomolecular and Biomedical Research

UCD Conway Institute continues to build connections between communities, patients and researchers with events such as Choirs for Cancer 2020 and the Patient Voice in Cancer Research (PVCR) initiative. PVCR co-hosted a 'Dragons' Den' event in Galway in February with the National Cancer Research Institute (UK), where ten research groups from around the country received feedback from patients on aspects of their research.

The Institute also continues to work with secondary school teachers and pupils through the Amgen Biotech Experience and partners, including the Junior Cycle for Teachers Support Service, offering training on molecular biology techniques and institute tours.

UCD Conway Fellow, Professor Oliver Fitzgerald won the 2020 Verna Wright Prize in recognition of his contribution to rheumatology. Verna Wright was a celebrated English rheumatologist who first developed an interest in the spondylarthritis field and particularly in psoriatic arthritis.

Most significantly, several UCD Conway Fellows were awarded funding under the Government's Joint COVID-19 Rapid Response calls, including: Professor Wim Meijer and Assistant Professor Nicola



Prof Wim Meijer, UCD School of Biomolecular and Biomedical Science; Heather Humphreys TD, Minister for Business, Enterprise and Innovation; Prof Orla Feely; and Prof Mark Ferguson, SFI Director General at the announcement of Joint COVID-19 Rapid Response awards at I-Form, SFI Research Centre for Advanced Manufacturing at UCD.

Fletcher for SARS-CoV-2 surveillance of sewage and sewage impacted waterbodies; Professor Gil Lee for critical reagent production; and Dr Madeline Murphy to develop COVID-19 and Flu A/B sensors. See the special report on COVID-19 for more details of UCD research that formed a vital part of the national pandemic response.

### UCD Institute for Discovery

The core mission of UCD Institute for Discovery is to foster interdisciplinarity and cultivate community. Through its global visiting fellowship programme, it supports both established and early career researchers to visit UCD and engage with the University community. In 2019/20, the Institute hosted several eminent international fellows including Professor Piero Baglioni, Professor of Physical Chemistry at the University of Florence, Dr Dianne Van der Wal, a senior research fellow at the Australian Red Cross Blood Service and Professor Aleksandar Hemon, Professor of Creative Writing at Princeton University.

In November 2019, UCD Discovery with UCD School of Physics hosted the celebration of the 500th anniversary of the death of Leonardo Da Vinci. Italian Ambassador Mr Paolo Serpi was one of over 100 guests who attended the closing gala dinner based on Da Vinci's cuisine, prepared by Michelin-starred chef Eugenio Boer and served with a scientific commentary by Professor Fabio Bruni, Professor of Biophysics at the University of Roma Tre.

In 2020, the Institute launched its Rising Star programme that provides supports for early stage interdisciplinary researchers. Several researchers have been supported to date including Dr Dolores Resano, a postdoctoral fellow at UCD Clinton Institute for American Studies who received Marie Curie Global Fellowship funding to continue her research at Dartmouth College, USA. Further support of early stage research included hosting the iWISH campus week for transition year students in Feb 2020.

In April 2020, the Institute launched Zoom for Thought, a new platform to enable 'virtual visiting Fellows' to UCD to share creative ideas with our community. The series encompasses lively fifteen-

## // UCD Earth Institute hosted a showcase in January to bring together the UCD environmental research community along with key stakeholders from government departments, agencies, industry and community groups //

minute virtual chats between institute Director Professor Patricia Maguire and some of the world's finest interdisciplinary minds on a range of thought-provoking topics. Guests included thought-leaders such as founder and director of California's Scripps Research Translational Institute, Professor Eric Topol.

### UCD Earth Institute

UCD Earth Institute hosted a showcase in January to bring together the UCD environmental research community along with key stakeholders from government departments, agencies, industry and community groups. At the event three new strategic priority projects were launched, supported and funded by the Institute: 'Understanding the social, cultural and scientific challenges of crop diversification in Europe'; 'The role of Irish towns in facilitating social inclusion, environmental sustainability and economic development; and 'The development of a network of hemp researchers'.

Institute Director Professor Tasman Crowe and Head of UCD School of Geography Professor Jacky Croke developed a new Sustainability BSc in 2020. The programme exemplifies the Institute's interdisciplinary approach to sustainability challenges, enabling students to specialise in either the economic, environmental or social dimensions of sustainability, complemented by modules in science, engineering, agriculture, social sciences, policy and law.

The Institute also hosted a range of online events over the course of 2020, including: a webinar on zoonotic diseases from Dr Barry McMahon, UCD School of Agriculture and Food Science; a series of summer talks including one on the UN Sustainable Development Goals by Professor Patrick Paul Walsh, UCD School of Politics and International Relations; and an international conference hosted by the Institute's Climate Resilient Agri-Environmental Systems strategic priority project and launched by Minister Eamon Ryan.

### UCD Energy Institute

UCD Energy Institute is focused on the decarbonisation of the energy system while maintaining a reliable and secure energy supply for all citizens. The Institute brings together researchers from a wide range of disciplines to tackle the challenges of decarbonisation, focusing on energy systems, energy management and energy in society, to drive Ireland's position as a world leader in the integration of renewable energy.

The Institute forges strong collaboration with policymakers and industry partners (such as EirGrid, ESB, Ervia, SSE, AIB), gaining deep insights into the needs of industry and society for the delivery of energy transition. Its research combines technical engineering with socio-economic expertise to assess policy implications and provides an evidence base for policy decisions. Through its work with the

Government's Climate Action Modelling Group, the Institute provides analytical support to the Department of the Environment, Climate and Communications in the development of Irish Energy Policy.

### UCD Institute of Food and Health

UCD Institute of Food and Health launched its new strategy for 2020-2024, setting out its vision to be a global leader in the scientific discovery that shapes the future of food and health. This new strategy is closely aligned to the UCD Strategy 2020-2024, 'Rising to the Future'. It is poised to deliver on all four objectives of the UCD strategy within its overall goal to future-proof global food systems, enabling healthy living and societal well-being. The Institute will focus on attracting highly skilled academic staff, researchers and students, supporting its members to compete successfully for research income and building a strongly networked research ecosystem with access to world-class infrastructure and facilities.

The Institute's membership grew considerably in 2019/20 with the addition of eleven new academic appointments including two strategic professorships and five Ad Astra fellows. It continues to drive scholarly leadership in food science and technology and is the global leader by Field-Weighted Citation Impact in the subject, based on analysis by SciVal on papers published for 2015-2020.

Four institute PIs featured in the 2019 Web of Science Most Influential Researchers: Professor Colm O'Donnell, Associate Professor Nigel Brunton, Professor Paula Bourke and Associate Professor Enda Cummins. Dr Amy Mullee was the lead author on a Journal of the American Medical Association paper linking artificially sweetened beverages to premature death, which ranked 21 in the top 100 papers of 2019 as measured by Altmetrics.

The Institute continues to develop opportunities with its international partners. It is currently developing an international fellowship in food and health in conjunction with the University of California, Davis. The initial intake of fellows will be in September 2021.

During the year, Professor Francis Butler was appointed to the Board of the Food Safety Authority of Ireland. Professor Dolores O'Riordan was appointed by Minister for Agriculture, Food and the Marine, Mr Michael Creed, to join the department's committee to develop Ireland's Agri-Food Strategy to 2030, which is chaired by adjunct Professor of the Institute, Professor Tom Arnold.

Finally, the Institute's public lecture series continued moving online in March with considerable success. Topics have included 'What is a Sustainable Health Diet?', 'Nutrition and Exercise for Weight Management' and 'Adolescent Nutrition – What Really Matters'.

### UCD Geary Institute for Public Policy

The UCD Geary Institute online platform for informing and debating public policy in Ireland, Publicpolicy.ie released over 50 papers across six priority thematic areas: Environment, COVID-19, Governance, Health, Housing and the Labour Market.

A series of high-profile online conferences were held on the policy response to the COVID-19 pandemic, which was a key component of the UCD response to the crisis. The conferences, with inputs from a range of both academics and policymakers, reached over 2,100

registered participants in seventeen sessions over four conferences in the first two months of the pandemic.

A team of Geary researchers has again been appointed Coordinator of the European Social Survey (ESS) in Ireland for 2020/21, following on from a successful completion of the survey in 2018/19. Ireland's participation in ESS is funded by the Irish Research Council.

The Behavioural Science team developed and published 'FORGOOD', an ethical framework for nudging, employed by various policymakers and institutions. The team was instrumental in the creation of the government COVID-19 strategy, developing a set of COVID-related resources as well as contributing research, including a key paper measuring daily emotional well-being during the pandemic using the Day Reconstruction Methodology.

Professor Liam Delaney was a member of the Behavioural Subgroup on the National Public Health Emergency Team, advising on the Irish COVID-19 communication strategy alongside behavioural, health, and social psychology experts.

The team also plays a key role in the H2020 PERITIA project on trust in Expertise (led by Professor Maria Baghramian, Head of UCD School of Philosophy) and will roll out a series of studies in this area during 2021. The group continues to have an active seminar and workshop programme led by Dr Leo Lades and Dr Margaret Samahita, including recent high-profile events on administrative burden and energy efficiency.

The Sexual Exploitation Research Programme (SERP) is based at the Institute and supported by UCD School of Social Policy, Social Work and Social Justice. SERP conducts independent feminist research on all forms of commercial sexual exploitation that creates useful knowledge for law and policymakers, practitioners, survivors, supporters and activists. Research funding in 2020 comes from the HSE's Social Inclusion Unit and the Department of Justice, Equality and Law Reform.

ERC project 'Labour Politics and the EU's New Economic Governance Regime,' led by Professor Roland Erne, UCD Quinn School of Business, hosted a public seminar in January 2020 entitled 'Shaping labour markets in the EU – the 'new' skills of migrant workers' and the group later presented at UACES: University Association for Contemporary European Studies.

### UCD Humanities Institute

UCD Humanities Institute has had a very productive year despite restrictions, meeting the challenges of COVID-19 by rolling out a portfolio of online formats: a flagship podcast series 'Our Authors' with leading humanities scholars; and the 'Our Resident Postdocs' podcasts which feature early career researchers who discuss their work. The series achieved 130,000 downloads.

Weekly Zoom sessions with resident PhD students and Postdocs have enabled research-focused discussions and informal peer-group interactions since March.

Highlights of online events included the Wellcome Trust-funded interdisciplinary research project 'Framing Ageing,' which involves gerontologists, anthropologists, sociologists, humanities scholars

and NGOs. The webinar 'COVID-19: Reframing Ageing' investigated biases towards older people in the public discourse about COVID-19 and attracted 300 attendees.

Transnationalising the Humanities is a new research strand with researchers from Memory Studies, Translation Studies, Literary Studies, Architectural History and Migration Studies. Since September 2019, the strand has run three events: the international conference 'Exploring the Transnational Neighbourhood: Integration, Community, and Co-Habitation', jointly organised with the Institute for Modern Languages Research in London; the symposium 'Transnationalising the Humanities,' and the Institute's PhD conference 'Belonging and Migration in Emerging Scholarship: Concepts, Perceptions, Experiences'.

In June 2020, the Institute launched a seed funding competition for UCD College of Arts and Humanities to incubate clustered research in line with UCD's Research Strategy.

### 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. This was a year of significant expansion for NovaUCD, UCD's innovation hub for entrepreneurs and new ventures.

Firstly, UCD invested €6.7 million to develop and extend the eastern courtyard at NovaUCD which was completed during the year. This development has resulted in a 50%+ increase in the University's capacity to house innovative start-up companies. A number of exciting companies, including Equal1 Laboratories (Ireland's first quantum computing company), Manna (Ireland's first drone delivery company) and SuperNode (Ireland's first superconducting transmission company) are already located in the east courtyard.

Secondly, the UCD Nova DAC, the subsidiary of UCD that manages NovaUCD and NexusUCD was awarded €3 million in funding by Enterprise Ireland under the third round of the Regional Enterprise Development Fund to develop an AgTech Connector Innovation Hub at the UCD Lyons Farm in Co Kildare.

**50%+**  
increase in the University's capacity  
to house innovative start-up  
companies in NovaUCD

**130,000**  
downloads of UCD Humanities  
Institute podcasts

# 80

## experienced founders and business leaders in the NovaUCD Mentors and Business Partners Network

The goal of the AgTech Connector Innovation Hub is to bring together the AgTech ecosystem in Ireland to accelerate the launch and scaling of AgTech companies by providing them with access to on-farm research collaboration opportunities, a location to test and trial their products and services in a real-world environment and access to dedicated acceleration programmes and incubation facilities.

This project will be led by NovaUCD, in collaboration with AIB; Kildare County Council and Kildare LEO; agri-companies including Devenish, DairyMaster and Glanbia; investors Finistere, The Yield Lab, and Atlantic Bridge; and leading AgTech researchers and innovators at UCD, Teagasc and Wageningen, Netherlands.

Finally, NovaUCD expanded its reach across Europe; working closely with I-Form, the SFI Research Centre for Advanced Manufacturing, it was awarded funding through the European Institute of Innovation and Technology (EIT) for its part in a consortium of European university incubators, Politecnico di Torino and Arts et Metiers Paris to bring disruptive innovations in the area of 'DeepInc' advanced manufacturing from the lab to market.

### Response to COVID-19

The COVID-19 lockdown which commenced in March had a dramatic impact on the over 60 businesses supported by NovaUCD across the campus but they all showed great resilience and pivoted as needed to advance their businesses. NovaUCD responded to these challenges by increasing our online engagement with the entrepreneurs to support them with relevant advice and connections.

NovaUCD also offered them a substantial licence fee discount during the summer months to show solidarity and support them through this difficult time. As a result only one client company left to rethink their business, and of the seven clients that were in the midst of securing investment rounds, four were successful.

To prepare for returning to the office, facilities in NovaUCD and NexusUCD were also redesigned to ensure physical distancing and a reduction in the number of touch points.

In response to COVID-19 restrictions we also rapidly and successfully transformed a number of NovaUCD initiatives and events from in-person to digital, including NovaUCD Customer Discovery Programme; NovaUCD Summer Business Interns Programme; NovaUCD Student Enterprise Competition; UCD Commercialisation Bootcamps and the presentation of the 2019 NovaUCD Innovation Awards, which are outlined on pages 58 and 59.

### Update on Recent/New Initiatives

With sponsorship from Ericsson and Vodafone, NovaUCD delivered Ireland's first 5G accelerator programme in advance of Vodafone offering commercial 5G services nationwide. The programme

attracted a number of established companies as well as start-ups across a range of sectors looking to leverage 5G mobile networks to offer advanced Augmented Reality, Virtual Reality and Internet-of-Things based services and products to their customers.

The NovaUCD Mentors and Business Partners Network has continued to grow, doubling in size during 2020 as we continue recruiting interested mentors and business partners to our network through digital campaigns, attendance at key ecosystem events and strategic engagements.

The network has grown to 80 experienced founders and business leaders across a range of industry domains engaged in our programme. Several of these mentors and partners have successfully joined UCD research teams to form UCD spin-outs and supported research teams in building commercialisation plans to win funding through the Enterprise Ireland Commercialisation Fund.

NovaUCD also joined a strategic partnership with UC Berkeley's Skydeck Incubator during the year, gaining access for UCD start-ups to the Skydeck programme and investor network, opening-up new options and opportunities for those start-ups seeking a bridge to Silicon Valley.

This year the nine-month NovaUCD and the UCD Lochlann Quinn School of Business Enterprise and Innovation internship scholarship programme is enabling an undergraduate business student to work remotely with two NovaUCD-based companies, Output Sports and Vivid Edge.

As part of the in-hospital Knowledge Transfer Offices initiative a new project entitled 'Connected Clinical Innovation' commenced during the year, between UCD, NCAD and the Mater Misericordiae University Hospital. The project aims to develop a model of design-led clinical innovation within the hospital environment based on best practice.

During the year NovaUCD was successful in obtaining funding from Knowledge Transfer Ireland to support the Knowledge Transfer (KT) Scouts programme. NovaUCD is now building on the pilot programme by recruiting and incentivising highly-motivated and committed individuals to act as KT Scouts and to train them to identify commercial opportunities.

One new aspect of the programme is to provide specialist digital training (in open source software, digital patents, data transfer contracts and artificial intelligence law and techniques) from experts in order to act as a further incentive for the scouts to commit to the programme.

The NovaUCD Customer Discovery Programme, designed to support early-stage UCD start-ups identifying trial partners and customers to validate products or services, took place virtually during the year and included four two-hour online workshops, delivered over a four-month period. This programme dovetails with the NovaUCD Summer Business Interns Programme which assigns an intern to work in a supporting role with the start-up. The intern gathers market data and customer target lists and executes digital marketing campaigns to identified sweet-spot customers.

This year NovaUCD partnered with the UCD Michael Smurfit Graduate Business School's Masters in Consulting programme and recruited eight business interns to take part in this programme remotely.

### 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.

Prior to the start of the COVID-19 pandemic in March, several international delegations, from countries including China, Estonia and the UK, 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 65 inventions. In addition, 25 priority patent applications were filed by UCD across areas of agriculture and food, energy, engineering, environment, information and communication technology, life sciences and veterinary medicine. 23 licence agreements were also concluded by UCD with a range of indigenous and international companies.

Four new UCD spin-out companies: AquaB Nanobubble Innovations Ltd, BioSimulytics Ltd, Branca Bonus Ltd and MiNan Microfluidic Innovation Ltd, were also incorporated during the year.

AquaB Nanobubble Innovations Ltd was established to commercialise a breakthrough technology to generate nanobubbles of different gases in aqueous solution. The company founders are Professor Niall English and Dr Mohammad Reza Ghaani, UCD School of Chemical and Bioprocess Engineering.

BioSimulytics is developing a software platform to bring greater speed, certainty and product data quality to a critical part of the drug development process. The company was founded by Professor Niall English and Dr Christian Burnham, UCD School of Chemical and Bioprocess Engineering alongside commercial lead, Peter Doyle.

Branca Bonus is developing a technology to help cure Epidermolysis bullosa (EB), a devastating genetic disorder that makes the skin as fragile as butterfly wings and for which there is currently no cure. The company was founded by Professor Wenxin Wang, UCD School of Medicine.

MiNan Microfluidic Innovations provides high precision microfluidic chip design, prototyping and manufacturing services. The company was founded by Professor Michael Gilchrist and Dr Nan Zhang, UCD School of Mechanical and Materials Engineering and Professor Wenxin Wang, UCD School of Medicine.

### ConsultUCD

ConsultUCD, the University's managed consultancy service, provides advice and support to all academics that are interested in sharing their knowledge and expertise with external organisations via consultancy. Consultancy pursued through ConsultUCD delivers societal and economic benefit to clients who gain from UCD's world-class knowledge and insight.

In the last year ConsultUCD has supported more than 60 academics who are engaged with all types of external organisations including



Pictured (l-r) are BioSimulytics team members: Peter Doyle, commercial lead, with Professor Niall English and Dr Christian Burnham, UCD School of Chemical and Bioprocess Engineering, winners of the 2019 UCD VentureLaunch Accelerator Programme.

multinationals, Irish start-ups, Government bodies and agencies and international universities. Projects range from half days to multi-year arrangements and span the breadth of expertise across campus.

Some examples of projects carried out this year include:

Assistant Professor Gerald Barry, an expert in virology in the UCD School of Veterinary Medicine has carried out COVID-19 related consultancy projects with a variety of clients including a not-for-profit, an early start-up and a national warehousing and logistics firm.

During the year Assistant Professor Michelle O'Connor, UCD School of Medicine and Associate Professor Clare Corish, UCD School of Public Health, Physiotherapy and Sports Science were both successful in winning separate tenders from CORU, the regulator for Health and Social Care Professionals, to provide competency assessment in their respective fields of radiography and dietetics.

Professor Michael Wallace, UCD School of Agriculture and Food Science was commissioned by Tillage Industry Ireland to deliver a comprehensive evaluation of the Irish tillage sector. Professor Wallace gave advice on how the economic performance and contribution of the sector might be enhanced.

### Partnering with Industry

UCD has a strong track record of working with industry and seeks strong and strategic engagement with business and with 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 Centres and Strategic Partnerships, 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 collaborated with UCD on research projects.

Over 60 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.

The UCD start-up community played a key role on four of the sixteen most innovative projects to be awarded funding under the second round of the Disruptive Technologies Innovation Fund (DTIF) fund. The four projects together secured €16.9 million, over three years, from a total of €65 million announced at a DTIF event held at NovaUCD.

### NovaUCD Support Programmes

The NovaUCD team also supports researchers in the commercialisation of IP outputs through a series of training programmes including the Commercialisation Bootcamp and the VentureLaunch Accelerator Programme. NovaUCD also supports the development of student entrepreneurial talent through the BT Young Scientist Business Bootcamp and the NovaUCD Student Enterprise Competition.

### UCD Commercialisation Bootcamp

Participants on this year's Commercialisation Bootcamps represented a total of 22 potential commercial projects emerging from research taking place at UCD. The overall aim of Bootcamps is to strengthen the pipeline of commercial opportunities arising from programmes. The May Bootcamp was successfully delivered online via Zoom due to the COVID-19 pandemic.



Pictured (l-r) at NovaUCD are Cian Flaherty, Ruairi Mullally, Maura Madden, Rhys Mordaunt and Alison Egan, winners of the 2020 BTYSTE Business Bootcamp.

### BioSimulytics Wins 2019 UCD VentureLaunch Accelerator Programme

BioSimulytics was declared the overall winner of the 2019 UCD VentureLaunch Accelerator Programme in front of a packed audience of over 250 people at the annual VentureLaunch showcase and awards event held at the UCD Moore Auditorium.

The aim of the annual UCD VentureLaunch Accelerator Programme, run by NovaUCD, is to support the creation and launch of sustainable and profitable new start-ups emerging from the University.

BioSimulytics is developing a software solution which only requires the basic 2-D structure of a compound to accurately predict the detailed profiles of all its polymorphic forms, ranked by the most stable, with full certainty achieved within weeks, resulting in a 20-50% time saving on the current experimentation method.

The members of the BioSimulytics team, a UCD School of Chemical and Bioprocess Engineering spin-out are Professor Niall English, Dr Christian Burnham, Dr Pralok Samanta and commercial lead, Peter Doyle.

### 2020 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 eleventh year, the innovation and skills camp, held at NovaUCD, involved 29 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.

A talented group of five teenagers from Dublin, Westmeath, Sligo and Kildare were announced as the winners of this year's Bootcamp for a project titled 'The reusable braille translator' which enhances visually impaired peoples' reading and web surfing experience by converting text into braille form.

### NovaUCD Student Enterprise Competition

The NovaUCD Student Enterprise Competition, an intensive four-week mentoring programme for student entrepreneurs, took place during the year. The programme (formerly known as the UCD Start-Up Stars Programme) is now in its sixth year and is run by NovaUCD as a framework to support undergraduate and postgraduate students who want to work together to develop and grow start-up companies.

Twelve early-stage student ventures and thirty participants took part in the competition, and as it was held virtually this year the participating students were located across Ireland and also in China, France, India, Italy and the USA.

Following a series of pitches to a panel of judges, UCD Formula Student (UCDFS) was declared overall winner and won a €5,000 cash prize.

UCDFS is a team of over 50 UCD engineering and business students who are working together to build an electric Formula-1 style car as part of the Formula Student competition, organised and run by the Institute of Mechanical Engineers.

// UCDFS is a team of over 50 UCD engineering and business students who are working together to build an electric Formula-1 style car as part of the Formula Student competition, organised and run by the Institute of Mechanical Engineers //

Three UCDFS team members; Peter Gately, Kelly Kaulsay, and Scott Mulligan, undergraduate students in the UCD School of Mechanical and Materials Engineering, won this year's competition with their early-stage start-up idea Formula Training. Formula Training is developing an online subscription-based platform for global Formula Student teams to learn the fundamentals they need to contribute to and compete in the Formula Student competition.

Two other participating start-ups, Uni21 and Daysier, were announced as second and third place winners and received €3,000 and €2,000 cash prizes respectively.

The sponsors of the 2020 NovaUCD Student Enterprise Competition were AIB, Arthur Cox, Deloitte, Ericsson, Goodbody Stockbrokers and Xilinx.

### NovaUCD 2019 Innovation Awards

The NovaUCD Innovation Award was established in 2004 to highlight UCD's commitment to innovation.

This year for the first time the format has been expanded to include six new categories, in addition to the NovaUCD Innovation Award. These new categories have been established by NovaUCD to recognise and celebrate knowledge transfer, consultancy and entrepreneurial achievements and successes, and the promotion of an innovation culture, made by members of the UCD research and innovation community.

The recipients of the 2019 NovaUCD Innovation Awards are profiled on pages 58 and 59.

### Other Awards

Professor William Gallagher, UCD School of Biomolecular and Biomedical Science, Director, UCD Conway Institute, and co-founder of OncoMark, a UCD spin-out headquartered at NovaUCD, was named winner of the 2019 SFI Entrepreneurship Award. OncoMark's lead product, OncoMasTR, is a prognostic test for early-stage breast cancer that can reduce the number of breast cancer patients receiving unnecessary chemotherapy.

During the year UCD, through NovaUCD, won two Knowledge Transfer Ireland (KTI) 2019 Impact Awards.

UCD and Glanbia won the Collaborative Research Impact Award for the AgriChemWhey project. This €22 million Horizon 2020 funded project, led by Glanbia in collaboration with UCD, through Professor Kevin O'Connor, UCD School of Biomolecular and Biomedical Science, is focused on the transformation of dairy waste products into high-value, bio-based products for growing global markets



Prof Orla Feely congratulates Prof William Gallagher, UCD Conway Institute, winner of the SFI Entrepreneurship Award, and Prof Kevin O'Connor, UCD School of Biomolecular and Biomedical Science, winner of the SFI Researcher of the Year award, with Prof Mark Ferguson, SFI Director General, at the 2019 SFI Researcher of the Year Awards.

including biodegradable plastics, bio-based fertilisers and minerals for human nutrition.

UCD and Atlantic Therapeutics won the Licence2Market Impact Award. Atlantic Therapeutics, headquartered in Galway, develops professional and consumer medical devices to treat all types of incontinence and other associated disorders by modulating nerves of the pelvic floor thus strengthening the muscles.

Last year the company received FDA approval for its INNOVO therapy device, an externally worn electrical muscle stimulator, the first ever transcutaneous electrical stimulator cleared as a safe, clinically effective and non-invasive product to treat stress urinary incontinence.

The INNOVO technology, comprising a patent application, now granted, and associated know-how was developed in collaboration with UCD through Professor Brian Caulfield, UCD School of Public Health, Physiotherapy and Sports Science, and subsequently licensed to the company.

### Fundraising Success

During the year several UCD spin-out and spin-in companies were successful in raising funding.

Brightwind, a renewable energy consultancy firm, secured €162,000 in funding from the Sustainable Energy Authority of Ireland to support the company in building a new wind and solar resource data management platform.

Manna, the drone food delivery company, secured \$5.2 million in seed funding, to support the company's commercial growth.

Output Sports, the UCD sports technology spin-out, closed a €1.3 million seed funding round led by the Atlantic Bridge University

Fund, with Elkstone Partners, Enterprise Ireland, and angel investors, John Hearne, co-founder and former CEO of Cúram Software and Leinster Rugby players, Adam Byrne and Dan Leavy.

PlasmaBound, a UCD spin-out which has developed a novel surface treatment technology to enable global manufacturing industries to reduce product weight and meet fuel efficiency and carbon emissions requirements, closed a €1.1 million investment round. The investment round was led by the Atlantic Bridge University Fund, with Enterprise Ireland, and a number of private investors.

Zipp Mobility the micromobility start-up which is targeting the UK e-scooter market raised over €1 million during the year. Investors include Brian O'Driscoll, the former captain of Leinster, Ireland and British and Irish Lions rugby teams, a New York based investor, a London-based VC and private angel investors. Zipp Mobility was founded in 2019 by Charlie Gleeson, a graduate from the UCD Lochlann Quinn School of Business.

### Other Successes

Equal1 Laboratories, a UCD spin-out, which is developing a new type of quantum computer based on the latest advances in semiconductor CMOS technology, has been named a company to watch by Nature Research, as part of its inaugural Spinoff Prize in collaboration with Merck. Equal1 is one of only 32 companies from around the world, and the only one from Ireland, to be included in the Ones to Watch list.

Professor Dominic Zerulla, UCD School of Physics and his team at PEARlabs Technologies, have received a special Science Foundation Ireland Future Innovator Prize of €500,000 in recognition of the potential impact of their project to develop a highly innovative imaging solution that enables ultra-fast video-rate nanoscale optical microscopy.

DuPont, a global leader in water purification and separation technology, exercised its option to acquire full ownership of OxyMem, a UCD spin-out company, during the year. OxyMem develops and produces Membrane Aerated Biofilm Reactor (MABR) technology for the treatment and purification of municipal and industrial wastewater. At the time of acquisition, the company had more than 60 employees and one production site located in Athlone, Co Westmeath.

ABB, the Swiss technology company, acquired Cylon Controls Ltd, a UCD spin-out company. Headquartered in Dublin, Cylon provides building automation and HVAC control solutions, delivering operational efficiency, energy and comfort solutions for commercial and retail buildings, schools and healthcare facilities. At the time of the acquisition the company had approximately 100 employees.

### UCD Innovation Academy

Despite the unprecedented impact of the COVID-19 pandemic, the UCD Innovation Academy has continued to grow its engagement with the student and academic communities during the year while also enhancing its engagement with the public service and industry.

This included:

- 561 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)

- 171 middle and senior managers from across industries and sectors who developed their capacity for innovation through the Professional Diploma in Creativity, Innovation and Leadership
- 156 graduates who were reskilled through the Postgraduate Certificate in Innovation, Entrepreneurship and Enterprise in collaboration with HEA Springboard+
- 225 PhD students who participated in modules in Creative Thinking, Social Entrepreneurship, Exploring Intellectual Property and Opportunity Generation and Recognition
- 72 professional educators, including 38 UCD academic staff and 12 staff from Vietnam National University (VNU) of Hanoi, who participated in the Professional Certificate and Diploma for Entrepreneurial Educators as part of the Irish Aid supported Vietnam-Ireland Bilateral Education Exchange Initiative.

Professor Suzi Jarvis, Director, UCD Innovation Academy and Dr Colman Farrell, Head of Programme Development, received medals 'For the Development Cause of VNU' by President Nguyen Kim Son of VNU in recognition of their valuable contributions, promoting the partnership between VNU and UCD.

During the year the UCD Innovation Academy also developed its relationship with the Department of Public Expenditure and Reform's Public Service Innovation Unit. UCD Innovation Academy was highly active throughout the first ever 'Our Public Service Innovation Week 2019' facilitating innovation workshops for 750 public servants.

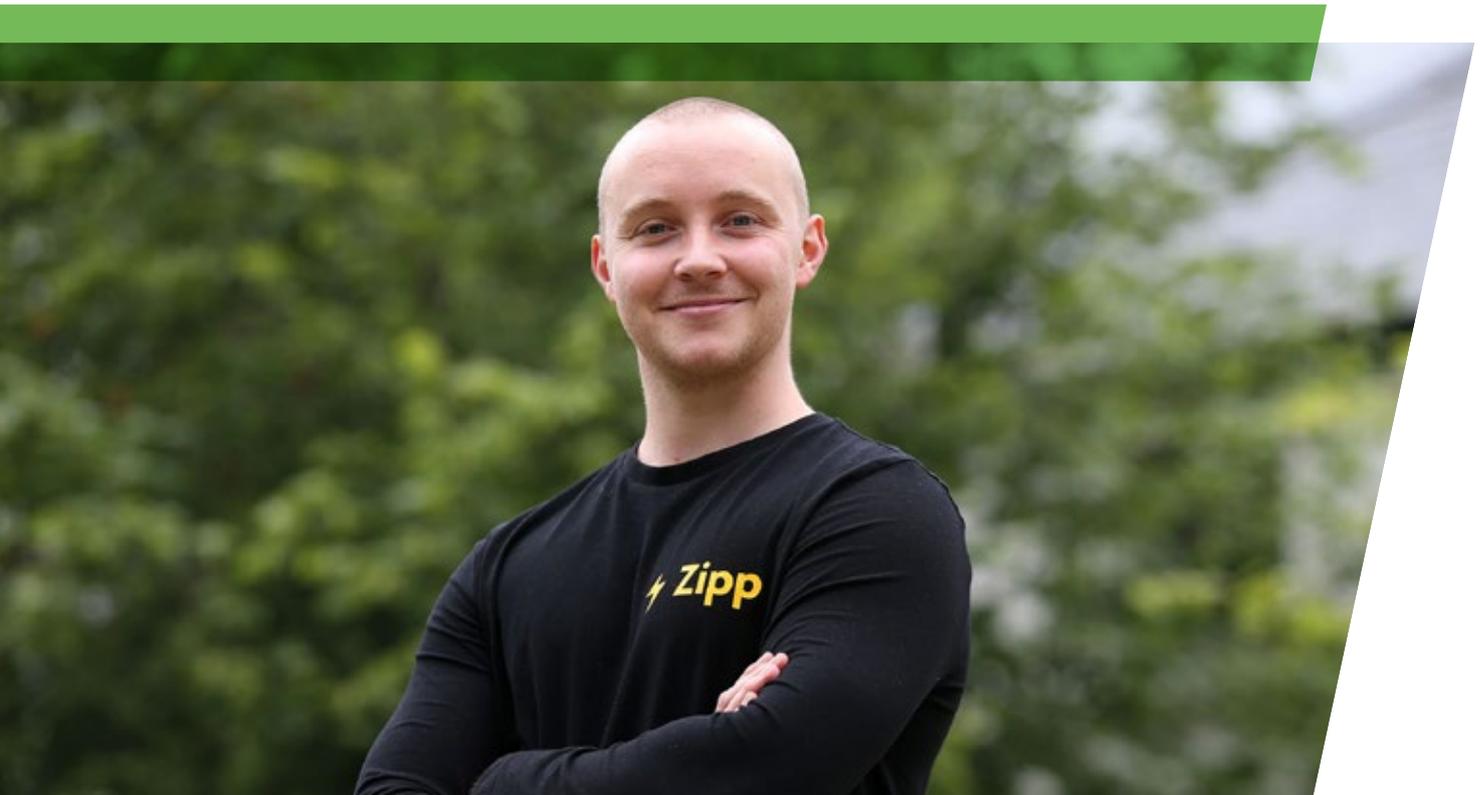
The UCD Innovation Academy continued to facilitate UCD undergraduate students to engage with industry. Students had an opportunity to work on real-world innovation challenges for PwC, Musgrave and Jo's Absolute Nutrition through intensive Design Thinking Sprints. Working in multidisciplinary teams, the students applied their creativity and entrepreneurial mindsets to prototype and pitch solutions to a range of challenges.

The UCD Innovation Academy successfully delivered the fourth year of InnovationAcademy@ESB, a bespoke programme designed to develop the innovation capacity of selected staff across the ESB. As with many other activities at the Innovation Academy, this programme migrated online with great success and four of the five initiatives developed by participants are being progressed by the organisation. The programme has also been renewed for a further two years.

Finally, UCD Innovation Academy welcomed its new External Examiner, Sir Mark Welland, Deputy Vice-Chancellor at the University of Cambridge and also a new member to its International Advisory Board, Professor Richard Templer, who is Director of Innovation at the Grantham Institute, Imperial College London.

## €1m

in funding raised by Zipp Mobility, a micromobility start-up targeting the UK e-scooter market



Pictured at NovaUCD is Charlie Gleeson, founder and CEO, Zipp Mobility. The micromobility start-up, which is targeting the UK e-scooter market, raised over €1 million during the year.

## 2019 NOVAUCD INNOVATION AWARD WINNERS



Dr Martin O'Reilly

Output Sports, which has developed an end-to-end solution using advanced signal processing and machine learning techniques, prototypes of which are being used by over 40 professional teams, is the recipient of **2019 NovaUCD Spin-out of the Year Award**. The company was co-founded by Dr Martin O'Reilly (pictured), Dr Darragh Whelan, Julian Eberle and Professor Brian Caulfield as a spin-out from UCD School of Public Health, Physiotherapy and Sports Science and Insight, the SFI Research Centre for Data Analytics.



Dr Fergal O'Reilly

Pictured is Dr Fergal O'Reilly, UCD School of Physics, recipient of the **2019 NovaUCD Innovation Award**. Dr O'Reilly co-founded SiriusXT, a UCD spin-out company with Dr Kenneth Fahy, Dr Paul Sheridan and Tony McEnroe based on the results of his research activities on soft x-rays and liquid optics over a near 10-year period at UCD. SiriusXT has created the first commercial, laboratory-based, soft x-ray microscope which can produce high resolution 3D images of cells and tissue that cannot be produced any other way. The company has raised over €12 million in funding including €4.5 million awarded this year from the European Innovation Council Accelerator Pilot programme.



Bobby Healy

Pictured is Bobby Healy, founder and CEO of Manna, the drone delivery 'as-a-service' company, recipient of the **2019 NovaUCD Founder of the Year Award**. In 2019 Manna closed a \$5.2 million (€4.6 million) seed funding round, led by US-based Dynamo VC.



**Professor Eoin Casey**

The recipients of the **2019 NovaUCD Licence of the Year Award** are Professor Eoin Casey (pictured) and Dr Eoin Syron, UCD School of Chemical and Bioprocess Engineering and Dr Barry Heffernan for the licensing of the Membrane Aerated Biofilm Reactor (MABR) technology to OxyMem. In December 2019 DuPont announced that it had exercised its option to acquire full ownership of the company, a significant milestone for the company, with only six years since the MABR technology was licenced by the University to OxyMem.



**Associate Professor David Timoney**

The recipients of the **2019 NovaUCD Consultancy of the Year Award** are Associate Professor Francesco Pilla, UCD School of Architecture, Planning and Environmental Policy; Associate Professor David Timoney, UCD School of Mechanical and Materials Engineering (pictured) along with Professor Robert Shorten and Assistant Professor Giovanni Russo, UCD School of Electrical and Electronic Engineering for a consultancy study commissioned by Toyota Ireland, through ConsultUCD, to investigate the energy behaviour of the Toyota Prius IV hybrid vehicle.



**Professor Madeleine Lowery**

Pictured is Professor Madeleine Lowery, UCD School of Electronic and Electrical Engineering, recipient of the **2019 NovaUCD Invention of the Year Award**. Professor Lowery received the award for her Handalysis invention, a new approach to rate the decline in motor function for neuro-degenerative disorders such as Parkinson's and Huntington's disease.



**Professor Suzi Jarvis**

Pictured is Professor Suzi Jarvis, founding Director of the UCD Innovation Academy, which is instilling creativity, innovation and entrepreneurship to over 1,000 students and industry professionals per year, recipient of the **2019 NovaUCD Innovation Champion of the Year Award**.

# GLOBAL ENGAGEMENT



Gaeltacht UCD scholars, brother and sister Mary and Patrick Horgan give a recital at a UCD Multicultural Employee Network social event.



**Professor Dolores O'Riordan**  
UCD Vice-President for Global Engagement

We have continued to make great strides in realising the ambition of our 2016-2020 strategy despite the impact of COVID-19 from January onwards.

A highlight was UCD's establishment of two new joint international colleges in China – Chang'an-Dublin International College of Transportation (CDIC), led by Professor Paul Fanning and the Guangzhou-Dublin International College of Life Sciences and Technology (GDIC), led by Professor Alex Evans. UCD's three international colleges in China, including Beijing-Dublin International College (BDIC), CDIC and GDIC now enrol over 1,500 students in addition to a further 2,200 students in other transnational programmes. With the outbreak of COVID-19 in China in January, we moved swiftly to successfully deliver our teaching and supports online from the commencement of Trimester 2.

On UCD's Dublin campuses, international student numbers increased further to 8,574, representing 29% of our Dublin students and bringing diversity to our community with students from 145 different countries. Cultural celebrations were hosted in conjunction with students, faculty and staff, and the Multicultural Employee Network of UCD (MENU) arranged events to help integrate international employees to UCD. We were delighted to host many of these events in the UCD Global Lounge, which was refurbished and relaunched in December. In response to the coronavirus

pandemic, UCD Global launched a Virtual Global Lounge offering a diverse range of online events.

A Student Advisory Forum was established, designed to enhance the global experience of UCD students. We have had wonderful engagement, affording students an opportunity to shape UCD's activities and services. UCD Global worked with the UCD Careers Network and UCD Alumni Relations to deliver a series of employability events in February, bringing to life the online career development programme 'Jumpstart', targeted at international students.

Building on our strategy to deepen global partnerships, a focus this year was the development of Global Partnership Engagement Plans for four UCD Colleges. A Global Engagement Seed Fund was created to provide funding to faculty and staff to advance partnerships and five innovative initiatives were funded. Furthering our engagement with selected priority partners and key international networks and consortia, UCD progressed its close partnership with University of California, Davis and continued to foster engagement with Universitas 21, the Worldwide Universities Network and UNICA.

## // Furthering our engagement with selected priority partners and key international networks and consortia, UCD progressed its close partnership with University of California, Davis and continued to foster engagement with Universitas 21, the Worldwide Universities Network and UNICA //

We were delighted to see an increase in the number of students availing of outbound exchange opportunities. Despite difficulties with mobility due to political unrest in some host countries and the coronavirus pandemic, 827 UCD students participated in outbound exchange, up from 767 last year. We had a very successful year in attracting funding to facilitate mobility. From the Erasmus+ programmes, UCD received €1,155,440 for mobility within Europe and €263,328 was awarded in Erasmus+ International Credit Mobility funding for mobility between Ireland and countries including Australia, New Zealand and Mozambique. Beyond this mobility funding, UCD secured over €14 million in Erasmus+ collaborative projects.

Unable to send volunteers overseas due to the coronavirus pandemic, UCD Volunteers Overseas (UCDVO) adapted swiftly by shifting to a virtual approach to running the programme. 56 volunteers took part in this pilot remote programme engaging in community health, education and community development programmes with three of UCDVO's partners in Uganda, India and Tanzania.

Responsiveness to COVID-19 has been at the forefront of UCD Global's mind for much of the year with a significant focus on ensuring the safe and co-ordinated arrival of new international students to Ireland, and the management of travel safety and risk

for outbound students. The network of five UCD Global Centres (in the USA, China, India, Malaysia and Dubai) has been crucial to UCD's success in these challenging times, with in-country staff playing a crucial role in the delivery of UCD's Global Engagement Strategy when overseas travel from Ireland is not possible.

The UCD Applied Language Centre (ALC) continued to extend its activities across the following areas: increased links with new UCD partner colleges in China (CDIC and GDIC) through English for Academic Purposes modules taught online and co-ordinated through the ALC; the introduction of Portuguese to result in 14 languages on offer to all UCD students through the Global Language Modules programme; a 36% increase in students enrolling on the summer Pre-Sessional pathway programme; and the first cohort of IPMP Certificate and Diploma students to graduate at the ALC.

The ALC hosted a networking event on job opportunities with German language skills in Ireland. Held in co-operation with the German Embassy Dublin, the German-Irish Chamber of Commerce and the UCD Career Services Centre, students attending received first-hand information from officials from the Department of Foreign Affairs, Facebook and the European Commission.

In March 2020, lockdown restrictions due to the COVID-19 pandemic prevented the face-to-face delivery of modules across Global Language Modules, Pre-Masters and Masters programmes at the ALC. Live classes were taught via Virtual Classroom on Brightspace and every effort was made to engage with students in their learning even as students were communicating at distance from many different parts of the world. Online teaching continued into the summer and Pre-Sessional staff were nominated for a Teaching and Learning Award.

The UCD Confucius Institute for Ireland (CII) started the year with the Confucius Cup Go and Chinese Chess Tournament hosted in co-operation with Irish Go Association, and Irish Chinese Chess Association. The event also celebrated the 70th anniversary of the founding of the People's Republic of China. In December 2019, the

# 29%

of our Dublin-based students come from abroad representing over 140 different countries

The award ceremony and exhibition of the China in My Eyes Art Competition was held at CII in December. Pictured are the prize winners with the presenters and members of staff: Chinese Ambassador to Ireland HE Dr He Xiangdong; Chinese Embassy team, including Zheng Dawei, Head of the Education Section; Thomas Duffy; Anne Collins; Prof Aoife Ahern, Principal, UCD College of Engineering and Architecture; Prof Liming Wang, Director, UCD Confucius Institute; Wei Zhang, Chinese Director, UCD Confucius Institute; and Confucius Institute arts teaching staff, Fengli Yu, Yi Jiang and Chunzhu Wang.



## 41

## Chinese teachers were trained by the UCD Irish Institute for Chinese Studies in conjunction with UCD CII

*Chinese as a Foreign Language in Post-Primary Schools in Ireland: Demand, Growth and Sustainability* report and the *Chinese for Junior Cycle Short Course* teaching resource pack were launched at CII. More than 100 representatives from the Department of Education and Skills, principals of secondary schools, Chinese teachers and students attended the launch.

To celebrate Chinese New Year, CII held a fair in January in Smithfield, with cultural workshops including calligraphy, paper-cutting, Chinese chess and music; the event attracted a big crowd.

To cope with the shortage of visiting teachers from China due to the COVID-19 pandemic, the UCD Irish Institute for Chinese Studies, in conjunction with UCD CII, organised a training programme for local Chinese teachers in July 2020, to build up the teaching capacity for Irish schools. A total of 41 teachers were trained and some participants are currently teaching Chinese in Irish schools.

In addition to the core activity of providing Irish language courses, Gaeltacht UCD further developed its cultural program with the initiatives *Fonn, Steip & Ceoil UCD 2019* and *Cultúr na Céadaoine 2020*, providing opportunities for active engagement with the language while sharing Ireland's rich culture with UCD's global community. In January 2020, *Teach na Gaeilge UCD*, the University's Irish Language Student Residence Scheme, celebrated its 20th

// In response to COVID-19, *Tionól Gaeilge UCD*, an International Summer School was held online and a particular highlight was the webinar on 'Irish Identity in a multilingual and multicultural society', which welcomed Irish speaking guests of Vietnamese, Russian and Nigerian heritage //



Pictured signing an agreement of co-operation following an international Food Innovation and Food Safety Workshop at UC Davis are (l-r): Triona McCormack, Director of Research, UCD; Prof Dolores O'Riordan; Dr Joanna Regulska, Vice-Provost and Associate Chancellor of Global Affairs at UC Davis and Dr Paul Dodd, UC Davis Associate Vice-Chancellor for Interdisciplinary Research and Strategic Initiatives.

anniversary with a celebratory event in the University Club. In response to COVID-19, *Tionól Gaeilge UCD*, an International Summer School was held online and a particular highlight was the webinar on 'Irish Identity in a multilingual and multicultural society', which welcomed Irish speaking guests of Vietnamese, Russian and Nigerian heritage.

The unit's online presence and digital developments in response to the pandemic expanded its reach globally, thus 'bringing the best of the world to Ireland and the best of Ireland and its distinct cultures to the world'.

Thank you to all who contributed to these successes throughout the year during these unprecedented times and for the continued support in the development of the UCD's global strategy 2020-2024 during the coming year.

**Professor Dolores O'Riordan**  
UCD Vice-President for Global Engagement

Pictured opposite: Hsin Yi Hsiao, awarded the University Diploma – International Pre-Masters Pathway with Prof Paul Fanning, International Dean (China) and Provost, BDIC.

University College Dublin  
Ireland's Global University



Science  
Business  
Arts &  
Social  
Engin  
Hea

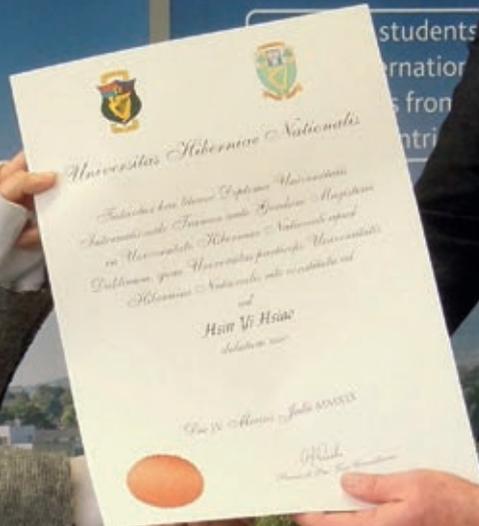
University College Dublin  
Ireland's Global University



RANKED  
No.1

IN RANKING  
FOR  
EMPLOYMENT

students  
international  
from  
ntri



www.ucd.

global

# EQUALITY, DIVERSITY AND INCLUSION



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

Pictured at the UCD Athena SWAN World Café in October – Reframing the Conversation: Leading Culture Change are (l-r): Eimear O'Reilly, UCD EDI Project Officer; Rory Carey, Director, UCD Culture & Engagement; Dr Rhona Mahony, Former Master of National Maternity Hospital, Holles St; Prof Orla Feely, UCD Vice-President for Research Innovation and Impact; and Marcellina Fogarty, UCD Strategic Equality Diversity and Inclusion Manager.

We have had many stark reminders this year of the challenges we face in removing barriers to equality, in enhancing the diversity of the University and in mainstreaming inclusive approaches to our core activities.

## Equality, Diversity and Inclusion during COVID-19

No-one in Ireland has been untouched by the effects of the COVID-19 pandemic and we have worked collaboratively with the other higher education institutions and the Higher Education Authority to identify the ways in which the pandemic has a disproportionate effect on both employees and students who already experience inequalities. This work has included recognition of the impact of the closure of schools and childcare facilities on those with caring responsibilities. Supports in UCD for those with child caring responsibilities included the development of a webpage outlining available resources, the organisation of webinars and coffee mornings and the establishment of new Parent Buddy Panel.

Promoting the availability of facilities and equipment to those with poor access to technologies for studying and working from home, implementing measures addressing the potential isolation of working

and study from home to promote a sense of inclusion and engagement, including many staff network virtual coffee mornings, webinars and a new EDI Blog are other initiatives taken to promote inclusion during this time. Supporting mental health and well-being was a particular priority during COVID-19 and a new webpage providing resources and information was developed to support employees. In addition, the Mental Health First Aid Peer Support scheme was launched in April which is a confidential peer support group for employees.

## Dignity and Respect

The higher education sector in Ireland has recognised endemic problems of sexual harassment and sexual violence affecting students and employees across the sector. An NUIG/Union of Students Ireland report published in June 2020 indicated shocking levels of sexual harassment and sexual violence affecting students in Ireland. In UCD we are increasingly aware that our formal Dignity and Respect Policy and Procedure, revised in 2017, while it did enhance the

process and supports that were previously in place, has been inadequate to identify and address not only experiences of sexual harassment and sexual violence, but also harassment and bullying.

The Dignity and Respect policy is currently undergoing a major review which included a significant internal consultation process through externally facilitated focus groups, written submissions and individual meetings. Consultation with external experts will also take place on the revised documents. These revised documents are just one element of a much broader framework to create a culture of dignity and respect to include training, awareness raising, additional dedicated supports and supporting documentation.

UCD was one of the founding members of the National Women's Council of Ireland-led campaign Ending Sexual Harassment and Violence in Third Level Education (ESHTE) in 2017 which led to the adoption of a government-led National Consent Framework in 2019. Within the sectoral measures UCD has led on the implementation and launch of an anonymous Report and Support Tool in February 2020, to gain a better understanding of the character, scale and location of breaches of Dignity and Respect policies so that actions can be taken to address the culture and to channel those affected towards the supports available.

Drawing on wider sectoral experience, the University piloted and will launch Bystander Intervention Training in September for all new UCD students as part of orientation.

## Gender Equality

The University continues to develop its capacity for reflecting on its challenges and learning how to respond and develop effective

actions, notably through the Athena Swan scheme. The Gender Equality Action Group has led on a wide range of actions, including a staff survey, events and focus group sessions, the development of a new Gender Equality Action Plan, as part of the Athena Swan Bronze institutional recognition. This is recognition for the University's work in understanding the barriers to equality within the institution, and the plans and actions developed to address these barriers, including the self-assessment, planning and Bronze Athena Swan recognition of 14 of UCD's Schools (including 6 Schools in the single College of Engineering and Architecture application), with 2 additional Schools, Economics and Languages, Culture and Linguistics, achieving Bronze recognition in April 2020. The Athena Swan scheme focuses increasingly not only on gender equality, but also challenges of racism and intersectionality.

## Race and Ethnic Equality

Global outrage at the May 2020 death of George Floyd in the United States and the growth in the Black Lives Matter movement highlighted the need to address racism in Ireland and in our universities. As part of Black History Month we welcomed Dr Nicola Rollock, Goldsmiths, University of London to UCD for a seminar which highlighted the need to raise awareness of racism across our entire university community, to engage with black and minority ethnic employees and students about their experiences, to collect better data to understand barriers to inequality with respect to such matters as recruitment and attainment, and to develop measures which effectively tackle racism. We established a new Race and Ethnicity Working Group during the year which, following the experience of the Gender Equality Action Group, is developing a stronger analysis of the challenges we face in order to then develop an action plan to address racism in the University.



UCD Schools receiving Athena SWAN awards at Advance HE Award Ceremony in October. Pictured, front row (l-r): Prof Lizbeth Goodman, UCD School of Mechanical and Materials Engineering; Dr Derek Costello, UCD School of Biomolecular and Biomedical Science; Dr Simone Ciuti, UCD School of Biology and Environmental Science; Assoc Prof Elizabeth Shotton, UCD School of Architecture, Planning and Environmental Policy; Prof Torres Sweeney, UCD School of Veterinary Medicine; Assoc Prof Marguerite Clyne, UCD School of Medicine; Prof Frank Monahan, UCD School of Agriculture and Food Science; Dr Meriel McClatchie, UCD School of Archaeology; and Adele Connor, Research Assistant, UCD School of Biology and Environmental Science. Second row (l-r): Tom Costelloe, Data Analyst, UCD Equality Diversity and Inclusion; Licia Carlesi, SEA, UCD Equality Diversity and Inclusion; Marcellina Fogarty, Strategic Manager, UCD Equality Diversity and Inclusion; Prof Orla Feely, UCD Vice-President For Research, Innovation And Impact; and Tristan Aitken, Director, UCD Human Resources, SIRC and Legal. Back row (l-r): Assoc Prof Donal Finn, UCD School of Mechanical and Materials Engineering; Assoc Prof Evelyn Doyle, Head of School, UCD School of Biology and Environmental Science; Prof Michael Doherty, Head of School, UCD School of Veterinary Medicine; Rory Carey, Director, UCD Culture and Engagement; Eimear O'Reilly, Project Officer, UCD Equality Diversity and Inclusion; Edward Moore, Senior Administrator, UCD School of Medicine; Henna Kinsella, UCD School of Agriculture and Food Science; Dr Saoirse Tracy, UCD School of Agriculture and Food Science; Shona Baker, UCD School of Agriculture and Food Science; Prof Tasman Crowe, UCD School of Biology and Environmental Science; and Prof Graeme Warren, Head of School, UCD School of Archaeology.

// Our activities are strengthened by a national environment in which government takes an increasingly strong interest in ensuring that higher education institutions both understand and address the challenges they face with respect to such matters as gender equality, racism, and access to higher education for under-supported groups //

### Collaboration

There is no room for complacency in the University as we address challenges of equality, diversity and inclusion. Our activities are strengthened by a national environment in which government takes an increasingly strong interest in ensuring that higher education institutions both understand and address the challenges they face with respect to such matters as gender equality, racism, and access to higher education for under-supported groups. There is strong national collaboration within the sector to develop common approaches and to learn from each other's experiences. UCD is working closely with the other universities on a range of initiatives to implement effectively the Public Sector Duty with respect to equality and human rights, initiatives supported by the HEA Gender Equality Enhancement Fund, the collection and analysis of EDI data. UCD is represented on the HEA Data Group and led on a national conference on good practice relating to the collation and analysis of EDI related data.

I wish to acknowledge the enormous contribution of so many employees and students in developing policies, actions and events to mainstream equality, diversity and inclusion. There is a range of EDI initiatives underway across many of the UCD equality grounds



Pictured at a discussion on International Women's Day are (l-r): Dr Marion Boland, Head of Research Policy, SFI; Elaine Burke, Editor, Silicon Republic; Prof Madeleine Lowery, UCD School of Electrical and Electronic Engineering; Dr Susan Leavy, Research Analyst, UCD School of English, Drama and Film; and Prof Orla Feely, Vice-President for Research, Innovation and Impact.

being led by the work of the EDI sub-groups and the Vice-Principals for EDI and supported by the EDI School Representatives. These roles are vital in supporting the mainstreaming objective of EDI and embedding EDI at a local level. The EDI Unit, led by Marcellina Fogarty and UCD Access and Lifelong Learning, led by Dr Anna Kelly, remain central to supporting the range of challenges we face and are addressing across the University.

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

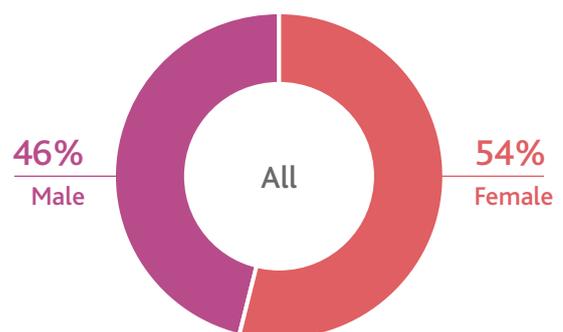
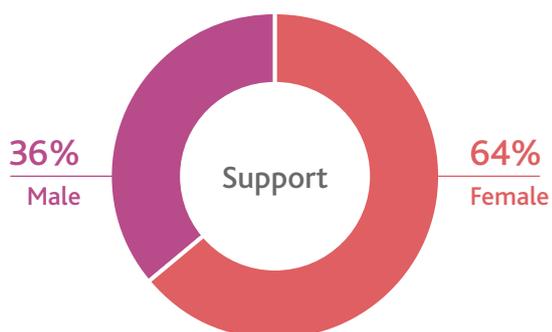
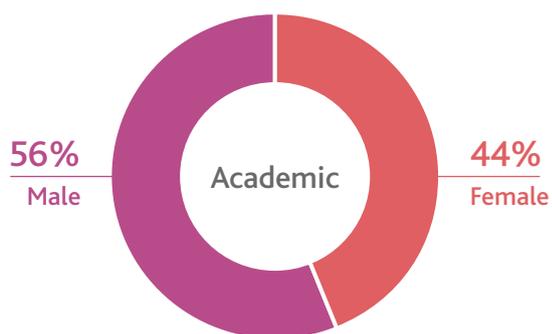


Pictured the launch of the UCD Report and Support Tool are (l-r): Prof Colin Scott, UCD Vice-President for EDI; Dr Aideen Quilty, UCD School of Social Policy, Social Work and Social Justice; Una Carroll, Welfare Officer, UCD Students' Union; Prof Jason Last, UCD Dean of Students; and Noeline Blackwell, CEO, Dublin Rape Crisis Centre. (Photo by Conor Capplis for the UCD College Tribune.)

## Employees by Gender 2019/20

Staff Category		Female	Male	Unknown	Grand Total	% Female
<b>Faculty</b>	Full Professor	43	129		172	25%
	Professor	35	65	1	101	35%
	Associate Professor	106	163		269	39%
	Lecturer/Assistant Professor Above Bar	296	304	1	601	49%
	Lecturer/Assistant Professor Below Bar	34	25		59	58%
	Other Academic & Teaching	77	55	2	134	57%
<b>Academic Total</b>		<b>591</b>	<b>741</b>	<b>4</b>	<b>1,336</b>	<b>44%</b>
<b>Research</b>	Researcher	199	282	9	490	41%
<b>Research Total</b>		<b>199</b>	<b>282</b>	<b>9</b>	<b>490</b>	<b>41%</b>
<b>Support</b>	Academic Administrative / Professional	366	90	3	459	80%
	Administrative/Professional	434	206	5	645	67%
	Research Support	157	122	4	283	55%
	Technical	140	107	1	248	56%
	Other Support	148	168	2	318	47%
<b>Support Total</b>		<b>1,245</b>	<b>693</b>	<b>15</b>	<b>1,953</b>	<b>64%</b>
<b>All</b>		<b>2,035</b>	<b>1,716</b>	<b>28</b>	<b>3,779</b>	<b>54%</b>

## Employees by Gender % Split



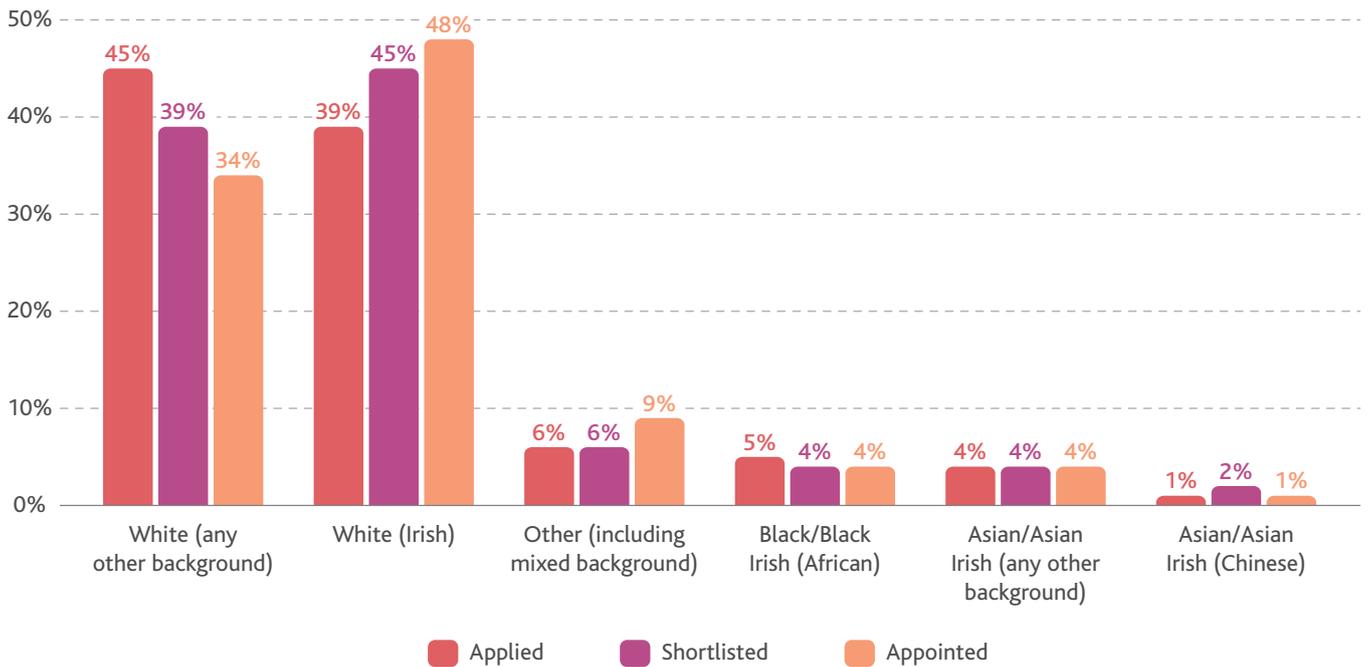
### Diversity Monitoring – Applicant Data

Diversity Monitoring was introduced in late 2013, early 2014. Applicants are invited to input their characteristics across the equality grounds, on a voluntary and anonymous basis. This allows greater visibility of diversity breakdown at applicant stage and during various stages of the recruitment process, supports gender related targets at the recruitment stage and supports the University’s strategic objectives, informing UCD policies and EDI priorities.

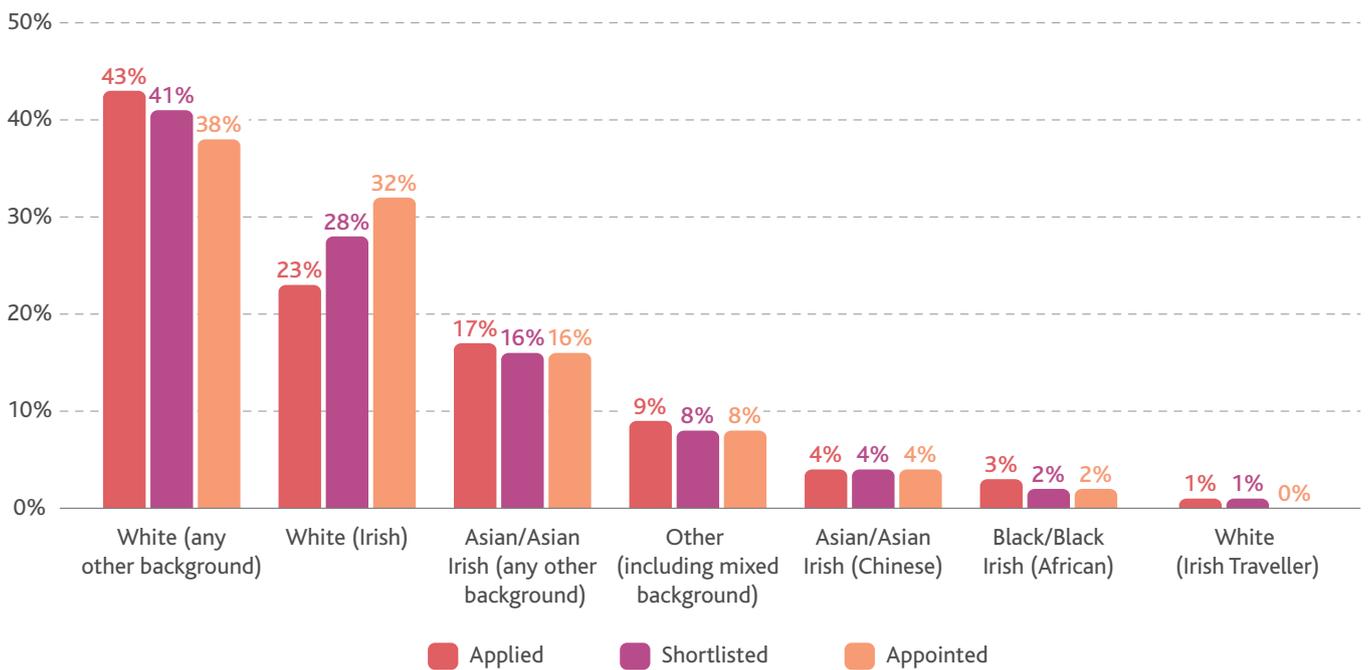
### Diversity Make Up of Applicants

The majority of academics and researchers applying, shortlisted and appointed over the 3-year period 2017-19 are white but there is slightly greater diversity amongst researchers.

#### Academics (Applied, Shortlisted & Appointed)



#### Researchers (Applied, Shortlisted & Appointed)



# FINANCE AND CAPITAL DEVELOPMENT



An artist's impression of the Centre for Future Learning.

**David Kelly**

Bursar

## FINANCE

### Outturn for the year

For the 2019/20 year, the University incurred a deficit of €3.9m on its HEA core-funded activities. The loss for the year arose primarily from lower student fee income compared to budget and a significant reduction in commercial income streams caused by the COVID-19 pandemic.

The University faced a major financial crisis during the year due to the sudden closure of the campus in March 2020 which resulted in the loss of income sources from student residences, on-campus catering concessions and summer business activities.

Since March 2020, the University's ability to generate non-Exchequer sources of income has been adversely impacted by the outbreak of the COVID-19 crisis. While there are significant uncertainties associated with the coronavirus outbreak, the University maintains that as a result of its healthy cash balances and continued tight cost control that it can sustain its operations in the current volatile economic environment.

### Financing of Capital Expenditure Programmes

During the year, the University successfully concluded a 25-year term loan financing agreement for €123 million with the Housing Finance Agency towards the cost of the first phase of the student residences masterplan.

Long term loan financing arrangements have been secured on favourable terms and at very low interest rates and provide the University with the long-term sustainable financing to fund a planned capital expenditure programme of €700 million over the next five years.

# €123m

in loan financing agreed with the Housing Finance Agency towards the cost of the first phase of the student residences masterplan



Student Residences Masterplan – the building continues.

### State Funding of Higher Education

In response to the challenges facing the higher education sector due to the COVID-19 pandemic, a package of financial supports was announced by the Government in July 2020 totalling €168 million. UCD expects to receive €20m of this €168m to cover COVID-19 related costs. This fund however does not cover any of the significant losses in income as a result of COVID-19 which include refunds to residents, loss of summer income and a virtual wipe out of restaurant and other commercial income on campus between April and September.

In 2020, the national budget also provided a welcome allocation of €74 million as additional funding on top of existing State funding commitments on pay awards.

### Review of Allocation Model for Funding Higher Education Institutions

While there is still an element of uncertainty regarding future funding for the restoration of pay levels for new public service entrants, previously reduced under the Exchequer's financial emergency measures during the financial crisis, the University is budgeting on the assumption that additional pay costs will be mostly funded by the State with the costs of non-core staff to be met from increases in non-EU fee income.

In recent years the 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.

The HEA's willingness to review the allocation model is very encouraging and, following a consultation process with the

# €168m

in financial supports to the higher education sector to cover COVID-19 related costs was announced by the Government in July

universities, the HEA remains 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 programmes.

The revised allocation model includes a recommendation for an adjustment to annual allocations to apply discipline-based weightings to all teaching income, which would benefit UCD in the medium term, although the impact of any changes is subject to an annual moderating factor.

The HEA's current approach to funding universities consists of three components:

- A block grant for EU undergraduate fees and recurrent grant allocation, driven primarily by student numbers, which are weighted by the relative costs of providing education in different disciplines.
- Directed top-sliced allocations which are made for specific strategic purposes, such as shared services initiatives.
- A performance-based funding component, which allows for the withholding of up to 10% of institutional recurrent funding on the basis of performance, which centres around a system of agreed three-year compact agreements where all higher education institutes commit to actions and targets.

In recent years, higher education institutions have become increasingly reliant on non-Exchequer funding, however the COVID-19 pandemic has placed a significant portion of this income at risk.

### School Strategic Planning and Budgeting

Schools and support units updated their five-year plans in 2020 alongside their strategic plans as part of the annual financial planning cycle. However, uncertainty over the funding of additional costs and the potential loss of fee income arising from the pandemic is causing a significant problem for units in preparing their financial plans.

Schools are facing additional costs which include costs related to the transition to remote teaching methods and the provision of additional student supports.

The Finance Office is assisting individual Colleges and Schools to develop 5-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. A specific objective of the Finance Office is to strengthen the alignment between resource allocation and strategic priorities with the need to diversify budget resources to maximise non-Exchequer income.

The Finance Office also has a role to play to ensure that the University has balanced budgets and to specify an annual budget process that will incentivise Schools to generate non-Exchequer sources of income. It also continues to play a role in providing guidance directly to Schools and Colleges in staff planning and developing business cases for new revenue generating initiatives.

In keeping with a policy of delegating decision-making to local level where appropriate, each Head of School now has enhanced financial responsibility within agreed targets. The close collaboration with the academic community will continue in order to develop the future direction of Schools and Colleges on a sustainable basis.

### The UCD Performance-Based Funding Model

2019/20 marked another year of the performance-based budgetary model, whereby additional resources are allocated on a formulaic basis between those Schools and Colleges generating additional income, and the institution. The model includes all fee income, whether EU or non-EU, from undergraduate or graduate sources. 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 withdrawn in recent years and is not a substitute for restoration of adequate funding.

Consistent with the UCD Global Engagement Strategy, fee income from international students continues to grow but there is concern that travel restrictions due to the pandemic could lead to a reduction in non-EU students coming to UCD. Schools may retain a proportion of net fee income, after allowing for scholarships and commission fees. Fee scholarships are used to mitigate student financial hardships and are also used as a marketing tool to recruit non-EU students.

Schools and support units updated their five-year plans in 2020 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 internal funding model was adjusted last year to consolidate small individual unit pay savings occurring throughout the University when temporary staffing gaps occur – eg 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.

### Planning and Budgeting System

In 2019 the Finance Office introduced a Planning and Budgeting Cloud system to develop financial forecasting and reporting functionality and this is now the system used for financial planning and budgeting. The application is an integrated planning system comprising a finance plan, staffing plan and a student fees plan.

Changes have also been made to the forecasting functionality at an individual cost centre level to enhance forecasting of institutional income and institutional expenditure.

// Consistent with the UCD Global Engagement Strategy, fee income from international students continues to grow but there is concern that travel restrictions due to the pandemic could lead to a reduction in non-EU students coming to UCD //



Artist's impression of the Centre for Creativity.

## Procurement

During the year the UCD Procurement and Contracts Office together with the Office of Government Procurement provided continued support to manage tenders for UCD's expenditure on supplies and services, as well as managing tenders for key licence concessions such as campus cafés and restaurants. The Unit worked closely with budget-holders within UCD to ensure UCD achieved best value for money on expenditure as well as ensuring compliance with UCD, National and EU Procurement requirements.

A project to review active supplier records on the finance database is ongoing, defining the activities of suppliers by linking them with pre-defined expenditure categories in line with those of the Office of Government Procurement.

A project was also initiated during the year to implement a contract management system to enable the UCD Procurement function to manage contracts throughout the contract period. The solution should also provide reporting on contracted as well as non-contracted expenditure. Various marketplace solutions have been reviewed and one has been chosen as the best fit for UCD's requirements.

## CAMPUS DEVELOPMENT

Significant progress was made in academic year 2019/20 to deliver on the vision for the University estate set out in the UCD Strategic Campus Development Plan (SCDP) 2016-2021-2026.

The Plan outlines how the Belfield Campus will be developed with three distinct Character Areas: Education, Research and Innovation; Sports and Student Amenities; and Residential.

The University has developed three exciting masterplans which present a more detailed vision for the spaces within each Character Area. These are:

- UCD Future Campus Masterplan
- UCD Sports and Student Amenities Masterplan
- UCD Student Residential Masterplan.

These masterplans outline how each Character Area will grow and develop over time, and how each will combine to form a coherent and integrated campus designed to provide a student experience that defines international best practice. The plans are informed by the University's strategic themes and will help to deliver an accessible, sustainable, healthy and digitally-enabled campus.

## UCD Future Campus

The Future Campus Masterplan presents a vision for the development of a significant portion of the Education, Research and Innovation Character Area adjacent to the main entrance of the Belfield Campus. The vision, developed by the celebrated Steven Holl Architects, ensures that development in this area will be delivered in a planned, coherent and sustainable way.

Detailed planning for delivery of Phase 1 of the Future Campus Masterplan progressed significantly in 2020. This will be a

// The Future Campus Masterplan presents a vision for the development of a significant portion of the Education, Research and Innovation Character Area adjacent to the main entrance of the Belfield Campus //



Artist's impression of UCD Ardmore Quad with view of UCD Centre for Creativity.



Artist's impression of the Centre for Future Learning.

transformational project for the Belfield Campus and includes the delivery of two new buildings, the Centre for Creativity and the Centre for Future Learning, as well as significant landscaping, commuting infrastructure and public realm improvements.

Much of the focus in 2019/20 was developing designs to achieve statutory consents for the various elements of the project. Careful consideration has been given to concepts of sustainability and green infrastructure in the masterplan. Both buildings will meet Near Zero Energy Building (NZEB) standard and will incorporate features such as passive ventilation, natural lighting and green roofs, while a significant portion of energy requirements will come from renewable energy. Sustainability is also a key consideration in the landscape and infrastructure works, including through the aforementioned prioritisation of sustainable transport modes, the integration of existing green spaces where possible, additional planting of trees and reinforcement of the woodland boundary, the use of natural water attenuation features, and the installation of a significant quantity of additional bicycle parking.

The Centre for Creativity, designed by Steven Holl Architects, will be a landmark building at the main University entrance, helping to deliver a sense of arrival to UCD. It will realise the vision of an Engineering and Architecture Precinct as set out in the SCDP, providing bespoke facilities for the College of Engineering and Architecture in close proximity to the existing Engineering and Materials Science Centre. Planning consents for the Centre for Creativity were achieved in 2020.

The Centre for Future Learning, designed by RKD Architects, also achieved planning consents in 2020. This centrally-located learning hub will be a key enabler of growth for the University, providing additional, purpose-built teaching facilities. It will be a resource for all disciplines and has been designed with the facilitation of active learning as a core objective, incorporating the kinds of formal and

**// The Centre for Future Learning, designed by RKD Architects, also achieved planning consents in 2020. This centrally-located learning hub will be a key enabler of growth for the University, providing additional, purpose-built teaching facilities //**

informal spaces that students need to acquire and practice the wide range of skills they will need to thrive in their future careers.

The third element of the Future Campus Phase 1 involves improvements in landscaping, the public realm and commuting infrastructure. In line with UCD's commitment to sustainability, pedestrian, cyclist and public transport will be prioritised.

In addition, UCD has engaged with the National Transport Authority (NTA) to progress plans for a new bus interchange facility at the entrance to the Belfield campus. This new facility, developed as part of the NTA's BusConnects plan, will allow for an increase in the quantity and quality of bus routes serving the campus. The bus interchange will be designed to integrate with the wider masterplan and will link with a new pedestrianised public plaza to create a quality sense of arrival. The plaza will run from the main entrance and the newly developed buildings to the newly refurbished Ardmore House, extending the existing pedestrianised zone of the campus to front entrance and neighbouring communities.

### **UCD Sports and Student Amenities Masterplan**

One of the unique benefits of the Belfield Campus is the availability of academic, residential, and sports and amenity facilities on one integrated campus. The eastern side of the campus provides a

range of sports facilities, including pitches, both grass and all-weather, tennis courts as well as state-of-the-art indoor sports facilities including a 50m swimming pool in the Student Centre. The Centre also provides a home to student societies, campus radio, performance space in the Astra Hall as well as a cinema, debating chamber, bar and informal social spaces.

The University aims to further improve and grow these facilities, to ensure the quality and choice of sports and non-sports-based amenities are of the highest international standard. To ensure these facilities are developed in a coherent and efficient manner, and to help identify student sports and amenity needs, a detailed masterplan was developed. This masterplan, completed in 2020 by Heneghan Peng Architects in consultation with University stakeholders, presents a vision for the Character Area which includes improvements to the public realm and landscaping, improved pedestrianised and cyclist routes, as well as a proposal for several new developments aimed at improving both sporting and non-sporting amenities.

The first development within the new masterplan is UCD's new International Association of Athletics Federations (IAAF) certified running track. Work commenced on the running track in 2019/20, with completion expected in summer 2021. This exciting new development will be a significant addition to UCD's already impressive sporting facilities and will support both elite and recreational runners.

Future developments will include a new multi-purpose sports hall as well as an expanded Student Centre to facilitate an enhanced

Astra Hall and additional performance space. Design for these new projects is expected to commence in 2020/21.

### UCD Residential Masterplan

The provision of quality, sustainable student accommodation and associated facilities on the Belfield Campus is a key vision of the SCDP. On-campus accommodation brings a vibrancy and energy to the campus outside of teaching hours, decreases the number of students commuting to campus and reduces the pressure on the rental market in the residential areas neighbouring the UCD campuses. For those students living in purpose-built accommodation, it provides an immersive student experience in a community of fellow students, and allows ease of access to education, sports and recreation facilities.

An ambitious Residential Masterplan has been developed by Reddy Architecture + Urbanism, in conjunction with stakeholders, which outlines the potential for an additional 3,000 beds being delivered on the Belfield Campus over the lifetime of the masterplan. This will eventually bring the total on-campus residential population to 6,000.

**3,000**  
additional beds would bring  
the total on-campus residential  
population to 6,000



Student Residences Masterplan – a new addition to campus.

Phase 1 of the Residential Masterplan which will deliver an additional 924 beds is currently under construction. Unfortunately the COVID-19 pandemic has impacted on the construction programme, however handover of the additional bed spaces is expected by the end of 2020. As part of Phase 1, the new 'Village' building will also be completed, which will provide additional support facilities needed by this growing residential community. The Village will include retail and food offerings, as well as a gym and a well-being centre. These facilities will also be open to the wider University community, as will a new lecture theatre which will be used for University teaching during the day but will also be available outside teaching hours for student events.

Preparations for the start of Phase 2, which will deliver an additional 1,254 beds constructed over a single level underground car park (providing replacement car parking for circa 600 car spaces) have continued over the academic year 2019/20. Detailed design was completed and procurement of the main works contractor commenced in 2020. Site clearance works to prepare the phase 2 site are ongoing.

### Recent and Planned Capital Developments

UCD is committed to the built heritage of the campus including the preservation and restoration of the period houses. Substantial completion of the refurbishment of the historic Ardmore House was achieved in summer 2020. This project has continued UCD's commitment to restore the period houses and incorporate them into the modern campus. The 1,074m<sup>2</sup> restoration project brings Ardmore House into compliance with modern fire safety and disability access standards, providing a new entrance and lift connecting all floors of the protected structure, restoring the original layout of the building, renewing the building services throughout and providing the University with much needed office and meeting space.

This year, initial design work commenced for Science Phase 3, with the objective of completing the refurbishment of the UCD O'Brien Centre for Science and facilitating continued growth in science teaching and research. Science Phase 3 will involve the refurbishment of Science North and Science West, which were amongst the first buildings constructed on the Belfield campus in the 1960s and have remained largely unchanged since that time. This project will deliver improved facilities for modern science teaching and research. The project will also allow for the construction of additional floor area to facilitate the growth.

Refurbishment of the Newman Building, one of the Andre Wejchert buildings from the original campus masterplan developed in the early 1970s, has continued over the last year.

// This year, initial design work commenced for Science Phase 3, with the objective of completing the refurbishment of the UCD O'Brien Centre for Science and facilitating continued growth in science teaching and research //

# 2,000+

trees of varying size and species planted in and around the campus woodlands in the past year

The project has resulted in a much improved working and teaching environment, and the sustainable reuse of the building structure will prolong the life of this much-loved building, which has already served the campus community for 50 years. Indeed improved sustainability is a key feature of the project, with upgrades to lighting, windows and building fabric resulting in a reduction of both electricity and heating consumption and associated carbon emissions.

### Hospitality Services

On the Belfield campus, new licensees were appointed to the Campus Bookshop, the main restaurant, the UCD Bicycle Shop, as well as to the NovaUCD, O'Brien Centre for Science and the Sutherland School of Law cafés. Several units such as the Quinn café underwent refurbishments as part of this tendering process. In line with the University's commitment to a more sustainable campus, single-use plastics will no longer be used in UCD cafés and restaurants.

The UCD hospitality team in Estate Services collaborated with Healthy UCD in the annual Healthy Eating week and findings from the removal of high added sugar drinks from campus were presented at the European Public Health Conference in Marseille in October 2019.

### Landscaping and Biodiversity

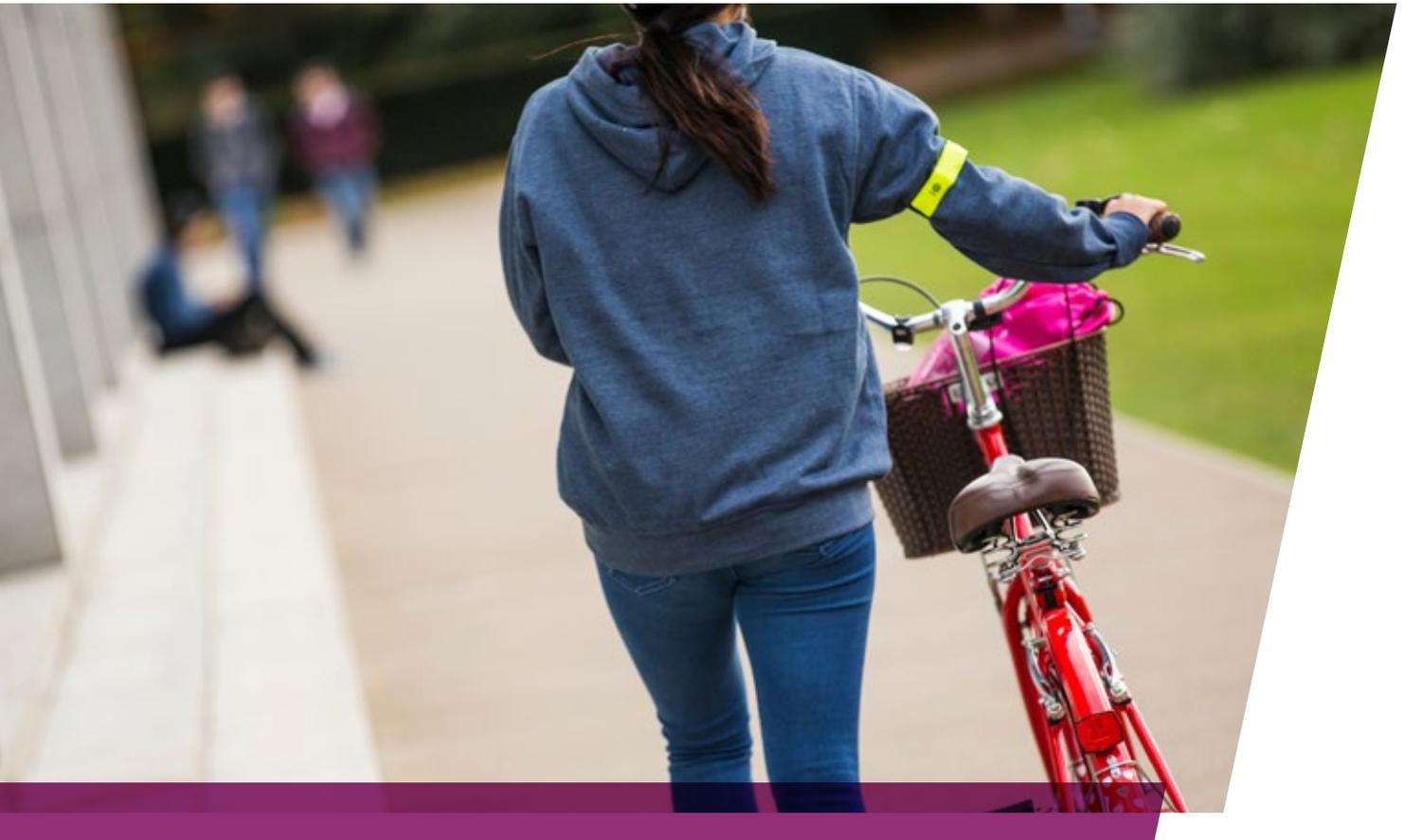
Over the past year, management practices have focused on increasing the proportion of biodiversity rich areas on campus, by strengthening existing areas including the campus woodlands, in addition to developing new areas, such as the recently landscaped area at Woodview.

The area of amenity grassland under a long-term relaxed mowing regime has been increased by approximately 10,000m<sup>2</sup>, with a further 2,000m<sup>2</sup> of wildflower meadow developed over the past couple of seasons to complement our traditional meadows, some of which have been in existence since 2004.

There have been in excess of 2,000 trees of varying size and species planted in and around the campus woodlands in the past year. Notable planting projects include the transplanting of over 100 mature and semi-mature trees in preparation for Phase 2 of the Residential Masterplan, to form the spine of a new section of woodland at Foster Wood; and supporting a student-led project to plant trees at Belfield Wood and the Oak Walk, to help offset their class carbon footprint.

### Commuting

In 2019/20, the UCD Community continued to increasingly choose sustainable transport modes to travel to campus; 8% of staff walked to campus, exceeding our 2026 target of 6%, and the



# 17%

of students drove to campus in 2019/20, a positive move towards our 2026 target of 16%

percentage of students driving to campus dropped from 18% to 17%, moving positively towards our 2026 target of 16%.

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), Dún Laoghaire Rathdown County Council and the UCD Smarter Travel Group.

Construction has commenced of a new dedicated pedestrian and cyclist entrance to campus located on the R138/N11 adjacent to UCD Nova. This new entrance will enable cyclists and pedestrians traveling north along the R138 to enter the campus before the main Belfield entrance, allow them to connect to the existing shared campus routes and deliver shorter journey times. This new entrance is also located adjacent to a pedestrian bridge crossing the R138 and will improve connections for cyclists and pedestrians coming from the eastern side of the R138. The new entrance will also reduce the number of users at the main entrance, avoiding potential conflicts between various modes and deliver a better experience for all. Cycle parking continues to be provided at

areas of high demand and additional cycle parking facilities are planned to be provided in the next 12 months.

### Energy

In 2009, under the National Energy Efficiency Action Plan (NEEAP), the public sector was given an ambitious energy efficiency target that required a 33% improvement by 2020. UCD had already been investing in energy efficiency improvements for many years before this, which made the target all the more difficult to achieve.

In conjunction with University management, Estate Services developed a plan to ensure the University achieved these challenging targets. The plan focused on improving UCD's energy management system, raising awareness amongst energy users, the incorporation of high standards of efficiency in new buildings and renovations, and the targeted investment in energy efficiency upgrades in the University's older buildings.

This plan has paid dividends, with UCD achieving the targets a full year early. Indeed UCD has surpassed the target, having achieved

// Cycle parking continues to be provided at areas of high demand and additional cycle parking facilities are planned to be provided in the next 12 months //

a 35.2% improvement based on calendar year 2019. This is a significant achievement for the University, and a demonstration of what can be achieved with a multi-faceted approach based on continuous improvement.

With the onset of the COVID-19 pandemic in March 2020, the University has operated at much-reduced levels of activity which will result in unusually low usage for the period. The Estate Services team has sought to leverage these opportunities where possible, while ensuring appropriate levels of service are retained for activities that have continued on campus.

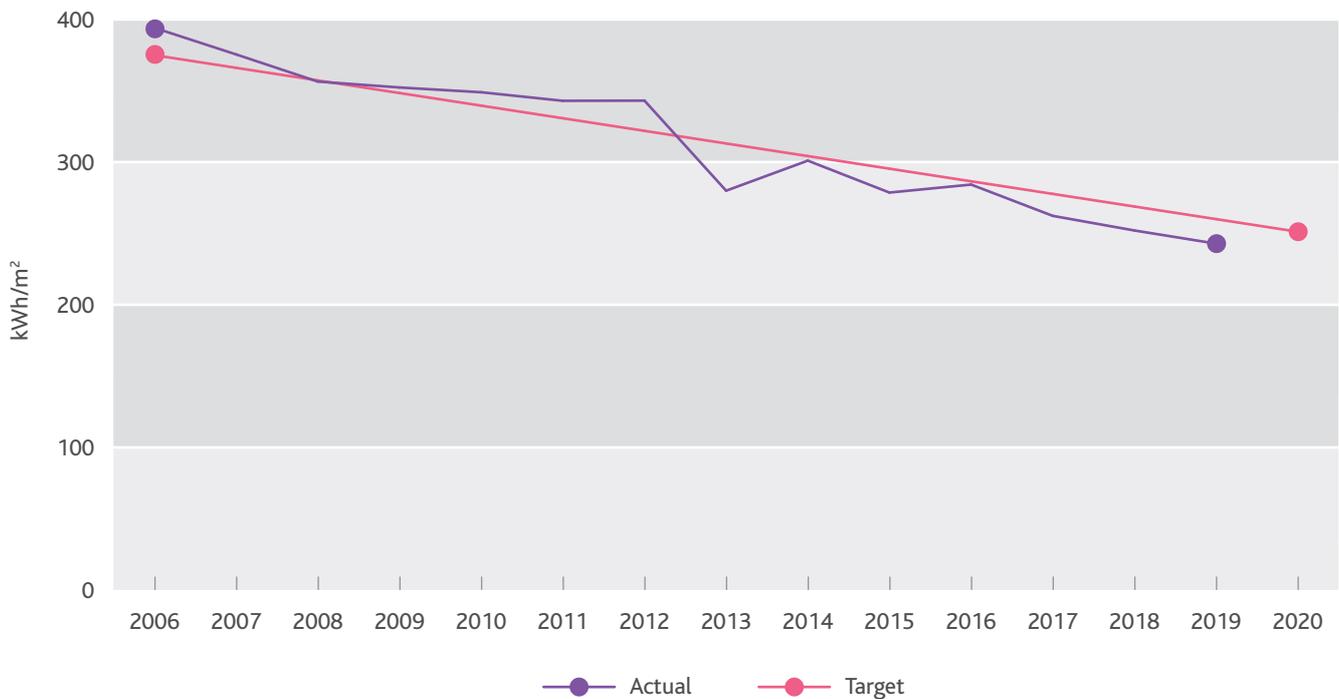
The University is now looking beyond 2020 and towards new targets being established by Government that will continue to focus on energy efficiency but will now also include carbon dioxide (CO<sub>2</sub>) reduction targets. This year the University commenced work to consider how to decarbonise thermal energy (heating and hot

water) supplied to buildings. As part of this, Estate Services was successful in a grant application to the Higher Education Authority's (HEA) Energy Efficiency and Decarbonisation Pathfinder Programme for the installation of a high-temperature air-source heat pump. This heat-pump will be connected to the Belfield District Heating system and will displace a significant quantity of heat currently produced using natural gas, which will result in considerable reductions in associated CO<sub>2</sub> emissions. Work will continue over the coming year to identify opportunities to further decarbonise the University estate and meet both efficiency and carbon reduction targets.



**David Kelly**  
Bursar

**Energy Performance Indicators**



**242.839**  
kWh/floor area (m<sup>2</sup>) 2019 EnPI

**3.7%**  
better than 2018

**251.188**  
kWh/floor area (m<sup>2</sup>) Target EnPI

**35.2%**  
better than baseline

**2.2%**  
above target

 **11kWh ↓**  
Decrease in primary energy use/m<sup>2</sup> in 2019/20 compared to 2018/19

# HUMAN RESOURCES, SIRC AND LEGAL AFFAIRS



**Tristan Aitken**  
Director, Human Resources,  
SIRC and Legal Affairs



Employees take part in Social Hurling, one of number of programmes organised by Culture & Engagement and Healthy UCD to promote physical well-being.

2019/20 was another intensively active and productive year for the HR, SIRC and Legal Affairs teams, focusing on implementing a broad range of new initiatives, as well as continuous improvements, to support the overall offering of services and support to our UCD colleagues.

Our programme was diverted in early Spring largely online with almost all teams working effectively from home. Concurrently teams absorbed significant additional workloads as we developed new programmes to support the mobilisation and maintenance of remote/hybrid working for our employees. This work continues. I am extremely proud of the way the teams in HR, SIRC and Legal Affairs have stepped up and supported the University's response to the COVID-19 pandemic.

## People Development and Organisation Effectiveness

The team focussed on initiatives which support both organisation change projects and the Gender Equality Action Plan.

Given the challenges presented by the pandemic, the Performance for Growth (P4G) process was adapted. In place of a full-cycle process, 'check-in' meetings were agreed to take place, ensuring

that each employee received recognition for their efforts, were clear on and supported in achieving shorter term objectives and received continuing appropriate development.

A bespoke programme was designed for the directors of the new College Office structures arising from the SASR implementation, and a similar development programme was designed for the managers at the next level of this organisation change. A new programme is currently in development for research leaders and will support and enhance the development of talent in this critical area.

Examples of initiatives in support of the Gender Equality Action Plan include: the continuation of the Aurora Programme for aspiring women leaders, with a cohort of 21 completed this year; and a Career Mentoring Pilot to specifically support promotion and early career planning by faculty, especially women, and to ensure they are enabled by a range of support mechanisms.

// A major project was undertaken to source and provide access to an eLearning platform for all employees. LinkedIn Learning is set to launch later in 2020 with a broad suite of resources available on an initial 9-month pilot basis //

A major project was undertaken to source and provide access to an eLearning platform for all employees. LinkedIn Learning is set to launch later in 2020 with a broad suite of resources available on an initial 9-month pilot basis, it is likely to have additional value as employees work from home with resources available online when and where it suits them.

In early 2020 to support the implementation of the new UCD Strategy, the People and Organisation Development team, in collaboration with the HR Partners, worked with Heads of School to facilitate School strategy planning workshops.

### Performance and Grading

The Job Sizing Framework, approved by the Department of Education and Skills in July 2019, was successfully implemented this year. This allows roles which may have grown substantially over a period of years to be re-evaluated and, where deemed to be at a higher level, enabled the promotion of the incumbent, subject to performance certification. This was a major project involving an initial pilot programme before a wider launch to eligible roles. The process resulted in 90 individuals being promoted, with the majority of those promoted being female. While this process will be an important tool for use by managers, it will not replace good organisation design and staff planning processes.

### Becoming an Employer and University of Choice

Trimester 1 saw further engagement events in support of the HR Strategic pillar to become an employer and university of choice. The largest event hosted by the Culture & Engagement team was Work/Life@UCD, an employee-focused day held in UCD O'Reilly Hall to promote development opportunities, supports and benefits. Some 800 colleagues visited 40 stands or attended one of 12 information seminars.

Sponsored by the Employee Engagement Network, the second UCD Values in Action Awards, recognising colleagues who bring the University's values to life, received 65 nominations and six awards were made.

# 65

nominations were received and six awards were made at the UCD Values in Action Awards

A significant amount of work was undertaken to develop, co-ordinate and communicate, in partnership with colleagues across UCD, a wide range of employee well-being supports including Healthy UCD, Restart a Heart Day and seminars supporting financial wellness with further work planned.

In March 2020 all on-campus engagement activities ceased due to COVID-19 and moved online. The team focused on developing activities that promoted health and well-being, while providing channels for social engagement at a distance.

Significant time and effort were committed to addressing queries from colleagues and publishing FAQs and other documents online as the University worked through the challenges it faced. The Staff e-zine increased its publication frequency to weekly to keep colleagues informed on key developments and to promote opportunities to connect and interact with each other.

Utilising the unit's experience in running surveys, the Culture & Engagement Employee Working from Home survey was launched in June, giving an insight as to how colleagues were coping following the transition to home working in March 2020. The results were shared across the University to help units plan and identify where further supports were required. For example, the Employee Relations team used the information to initiate revisions to the COVID-19 Remote Working Policy.

### Equality, Diversity and Inclusion

UCD is committed to the promotion of a culture which upholds the dignity and respect of the individual and which supports their right to study and/or work in an environment which is free from all forms of discrimination. This is supported in the University strategy through its strategic objectives to 'provide an inclusive educational experience' and to 'attract, retain and develop an excellent and diverse cohort of students, faculty and staff'. Promoting a culture of dignity and respect and well-being is also a strategic objective of UCD Equality, Diversity and Inclusion (EDI).



Pictured (l-r) are 2019 UCD Values in Action award recipients Dr Conor Buggy, UCD School of Public Health, Physiotherapy and Sports Science 2019; and Catriona Keane and Dr Niamh Nestor, Student Advisors, representing craft group UCD Purl Jam; with adjudication chairperson Prof Joe Carthy.



Organising committee members and trainers, with the Dean of Medicine, Prof Michael Keane at Restart a Heart held in October to teach hands-only CPR to employees and students.

A multidisciplinary working group was established in Autumn 2019 to carry out a review of the UCD Dignity and Respect policy and procedure, which were last reviewed in 2017. This review is currently at consultation stage where a wide range of employees, students, internal and external expert groups are being engaged.

The significant work of the EDI team, who are based in Culture & Engagement, in supporting employees and students, crosses all HR and other University units and is captured elsewhere in this Report.

### Employee Relations

Employee Relations oversaw the development and implementation of the new UCD Disciplinary (Statute 28) and Grievance Procedures. This will make the application of disciplinary and grievance processes more efficient and effective, while ensuring that the appropriate due process protections for employees are fully adhered to. These procedures were implemented following positive engagement with trades unions and highlighted the enshrined practice of co-operation and consultation that has reduced the need for third-party intervention or referrals and supported the approach of early non-formal dispute resolution processes.

### HR Partner Team

Throughout 2019/20, the HR Partner Team (HRP) has been heavily engaged in organisation design, restructuring and change management activities, accelerated significantly since the launch of the HR Strategy. In collaboration with UMT, Clarion Consulting, and local management, the team supported the organisational design and implementation of recommendations arising from the Student and Academic Services Review (SASR). Targeted development programmes were designed, in conjunction with the HR PD&OE Team, local management and College/School Directors to support the ongoing bedding down of enhanced structures.

Both the HRP and PD&OE teams were awarded practitioner certification on the DiSC Framework, enabling in-house delivery

# 2,087

applications were received for Year 2 of the Ad Astra Fellowship programme, an increase of 109% over the previous year

of related programmes and sees both these teams focused on the identification, design and delivery of organisational development initiatives across the University. Significant initiatives and activities included the roll-out of the University's new Job Sizing Framework, Aurora Programme, Integrated Planning Process, Quality Reviews, Case Management, Coaching Sets and the dignity and respect review process.

With the onset of the COVID-19 pandemic, the HRP Team has worked with HR, SIRC, Legal and Estates colleagues to develop management and staff guidelines, FAQs, roll-out of the Public Sector Re-assignment Programme, location of staff overseas process and supporting local managers and staff on the dynamic return to campus work planning process, with a key emphasis on staff well-being.

The team provided coaching 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.

### HR Services

Year 2 of the Ad Astra Fellowship programme was successfully launched, with advertising targeted at 16 Schools across 4 Colleges. 2,087 applications were received across those schools representing an increase of 109% over the previous year. Applications were at College shortlisting stage when the programme was paused due to COVID-19.

In support of continuous improvement, further initiatives were implemented to support Colleges, Schools and Support Units, the process for engaging tutors and demonstrators has moved online to facilitate the streamlining of this activity which is typically very busy at the start of each trimester. The update to the main application software CoreHR reported last year has enabled the development and maintenance of team structure information for all Schools and Units, allowing them to access their employee 'Reports To' structure. In addition, an interactive employee organisational chart is now available in ESS (Employee Self-Service).

Following on from 2018 Interim Arrangements allowing employees to continue in employment to age 66, the Public Service Superannuation (Age of Retirement) Act 2018 was signed into law on 26 December 2018 and provides for an increase in the compulsory retirement age from 65 to 70 for pre-2004 public servants. In 2019, 32 pre-2004 employees were due to retire at age 65. 78% remained in employment as a result of the legislation.

The Voluntary Life Assurance Scheme underwent a review which has resulted in a decrease in premium rates for staff members from 0.45% to 0.35% of salary and increase in children's, accidental death, and terminal illness benefits.

## Legal Affairs

Legal Affairs continued to deal with an ever-increasing volume of work across the scope of the activities of the University, with a particular focus on assisting with challenges arising due to the pandemic. The team has proactively contributed to and supported the University's EDI initiatives and provided membership of key university committees and groups including UMT sub-committees for research integrity, GDPR, Academic Council Committees and FPAC.

The Office of the Data Protection Officer has continued to support and advise the academic and professional community on the implementation of GDPR and developed a wide range of tools and resources. With its innovative and effective approach, it has greatly helped to increase data protection awareness throughout the University.

The Records Management and Freedom of Information Unit continues to manage record numbers of FOI and Data Access Requests in a highly professional and effective way by increasing engagement with record-holders.

## Safety, Insurance, Operational Risk and Compliance Office

The SIRC Office continues to provide support and expert advice to the wider University community, with the challenges posed by

the COVID-19 pandemic taking a central place throughout much of 2020. The Office of Research Ethics responded to the national effort to combat COVID-19 by ensuring that related research was prioritised for ethical review and aligned its activities with the National Research Ethics Committee, a national body established in response to the pandemic. The Office of Research Ethics has also worked closely with safety professionals within the wider SIRC Office to ensure that COVID-19 risks are addressed as part of any research involving face to face contact.

Notwithstanding the demands placed upon its resources by the pandemic, the SIRC Office initiated a new Safety Management System for Schools which will form the basis for managing safety in the University for many years to come. Throughout much of 2020 the office has devoted resources to addressing the challenges posed by the COVID-19 pandemic and has supported and assisted colleagues by developing policy, procedures, risk assessment, training, and guidance. The Director of SIRC has taken a role on many of the University's key COVID-19 response committees. The new environment created by the pandemic has also impacted on the commercial sphere of operations and the SIRC Office had to procure insurance cover for the University in a challenging and complex commercial environment.

// The Office of the Data Protection Officer has continued to support and advise the academic and professional community on the implementation of GDPR and developed a wide range of tools and resources //



**Tristan Aitken**

Director, Human Resources, SIRC and Legal Affairs



Organising committee and students pictured at the launch of Rás UCD, the annual 5K race to raise funds for UCD Volunteers Overseas. The race was subsequently cancelled due to COVID-19.



# COLLEGE OF ARTS AND HUMANITIES

Pictured at the launch of the College Strategy (L-r) Prof Sarah Prescott, College Principal; Triona McCormack, UCD Research, Innovation and Impact; and Assoc Prof Ivar McGrath.



**Professor Sarah Prescott**  
College Principal and Dean  
of Arts and Humanities

The College of Arts and Humanities was excited to launch a wide-ranging new Research Strategy for 2020-2024.

At the heart of the strategy are eight interdisciplinary research themes that each work independently but also engage with and support the four strategic thematic areas of 'Rising to the Future', the UCD Strategy 2020-2024: Digital Cultures; Engaged Creativity; Environmental Humanities; Health, Medicine and Well-being; Transnationalising the Humanities (led by the UCD Humanities Institute); Ireland in the World; Thresholds of Knowledge; and Violence and Society. These eight themes articulate the relevance of our subjects in today's rapidly changing and complex world and seek to enable arts and humanities researchers to work together to explore pressing global issues from a past, present, future and multi-linguistic perspective. Although the Strategy was conceived and launched before the outbreak

of COVID-19 in March 2020, the eight themes are already proving responsive to the new challenges presented by the pandemic and demonstrating the key role history, culture and the arts have to play in this rapidly evolving context.

In the context of the new Research Strategy, Associate Professor PJ Mathews, UCD School of English, Drama and Film, and leader of the Engaged Creativity research theme, introduced the 'What is Creativity?' series of public lectures and performances by leading practitioners. The series opened with a special lecture and performance by Julie Morrissy, Poet and UCD John Pollard Newman Fellow in Creativity, titled: '*Extra helpful nerves between realities: Creativity and Performance*'. In March, Tom McLeish, Professor of Natural

# €2.5m

## received as a prestigious European Research Council Advanced Grant

Philosophy, University of York delivered a fascinating cross-disciplinary lecture on *'The Poetry of Music and Science and the Role of Creativity in Science and Arts'*. Further planned events in the series were paused due to COVID-19 but we look forward to continuing this series in the next academic year.

This was an excellent year for the College in the UCD 2019 Research Impact Case Study Competition. Professor Emilie Pine, UCD School of English, Drama and Film was the overall winner for her case study, 'Communicating the legacy of child abuse and helping victims heal', which showcased research combining humanities-led inquiry and digital technologies to produce new knowledge of the scale and complexity of institutional abuse. Dr Desmond Earley, UCD School of Music, was awarded runner-up for his work 'Promoting Ireland's rich cultural heritage with contemporary choral music'. Dr Kelly Fitzgerald, UCD School of Irish, Celtic Studies and Folklore, was awarded runner-up for her work on 'Housing memories: the Dublin Tenements' Museum'.

This was also a rewarding year for external awards and public recognition of the excellence of scholars across the College.

Professor Gerardine Meaney, UCD School of English, Drama and Film, received a prestigious European Research Council Advanced Grant of €2.5 million for a study focused on migration and culture. Associate Professor Catherine Cox, UCD School of History won Best Production for *'The Examination'* at the 23rd Irish Times Theatre Awards in association with Brokentalkers Theatre Company, exploring mental health and human rights in the prison system in the UK and Ireland. Dr Claas Kirchhelle, UCD School of History, received a prestigious Wellcome Trust University Award in Humanities and Social Science for his interdisciplinary and timely medical humanities project *Enslaved Viruses: The Global History of Bacteriophage-typing and Epidemiological Surveillance*. Dr Sharae Deckard, UCD English, Drama and Film was awarded the British Association for Contemporary Literary Studies Edited Collection Prize for her co-edited volume *World Literature, Neoliberalism and the Culture of Discontent*. Professor Margaret Kelleher's (UCD English, Drama and Film) book on *The Maamtrasna Murders*, published by UCD Press, won the Michael J Durkan Prize

**// UCD School of History won Best Production for *'The Examination'* at the 23rd Irish Times Theatre Awards in association with Brokentalkers Theatre Company, exploring mental health and human rights in the prison system in the UK and Ireland //**



UCD Arts & Humanities Creative Fellows at their inaugural meeting, front row (l-r): Moya Doherty, Rachel O'Kane, Michael McGlynn, Barbara Dawson, Jenny Jennings, Oriole Cullen, Siún Ní Dhuinn and Gráinne Humphreys. Back row (l-r): John O'Donovan, Deirdre Mulrooney, Jessica Traynor, Pearse McCaughey, John Butler, Martin Johnson, Paul Brady and Assoc Prof PJ Mathews, UCD School of English, Drama and Film.

## College structure

### Associate Professor

#### Fionnuala Dillane

Associate Dean for Arts and Humanities

### Associate Professor

#### Dr Gillian Pye

BA Arts Programme Co-ordinator

### Associate Professor Paul Rouse

BA Humanities Programme Co-ordinator

### Dr Joseph Twist

Vice-Principal for EDI

### Dr Aoife Whelan

Vice-Principal for Global Engagement

### Associate Professor

#### Elva Johnston

Vice-Principal for Graduate Studies

### Dr Naomi McAreavey

Vice-Principal for Teaching and Learning

### Associate Professor

#### Ivar McGrath

Vice-Principal for Research, Innovation and Impact

**UCD College of Arts and Humanities consists of seven schools:**

### Associate Professor

#### Emily Mark-Fitzgerald

Head of School, UCD School of Art History and Cultural Policy

### Dr Alexander Thein

Head of School, UCD School of Classics

### Professor John Brannigan

Head of School, UCD School of English, Drama and Film

### Professor Robert Gerwarth

Head of School, UCD School of History

from the American Conference for Irish Studies. The top prize in British architectural history, the Alice Davis Hitchcock Medallion, was awarded to Assistant Professor Conor Lucey, UCD School of Art History and Cultural Policy, for his book *Building Reputations: Architecture and the Artisan, 1750-1830*. Professor Robert Gerwarth, UCD School of History was the 2020 recipient of the Reimar Lüst Prize, the first academic based in Ireland to receive the honour which recognises outstanding scholars who have made exceptional contributions to Humanities or Social Science research and to the promotion of cultural relations between Germany and their own country of residence.

In September, Dublin's new landmark cultural institution, the Museum of Literature Ireland (MoLI) opened its doors on Culture Night. Since the opening, both faculty and students in the College have enjoyed many collaborations, including events, talks and tours. The 2019 UCD Arts and Humanities Annual Lecture, with the UCD School of English, Drama and Film, was delivered by the acclaimed novelist and literary scholar Professor Sarah Moss at MoLI, on the theme: *'Feet in Ancient Time: Reflecting on Literary Inheritance in the Age of Brexit'*. Sarah Moss

published her latest novel *Summerwater* with Picador in 2020 and will take up an appointment in Creative Writing at UCD School of English, Drama and Film in 2020.

In November, the College was proud to announce that the first female Director of Dublin's Hugh Lane Gallery and leading advocate for the visual arts in Ireland, Dr Barbara Dawson, was the 2019 UCD Alumni Awardee for Arts and Humanities. The College was also honoured to welcome home nineteen alumni for the inaugural meeting of the first-ever UCD Creative Fellows group. The Arts Council of Ireland and UCD School of English, Drama and Film announced Derry poet Colette Bryce as the 2020 Creative Writing Fellow. Furthermore, this year the College of Arts and Humanities developed its first-ever Alumni Advisory Group, bringing together talented leaders from different industries.

The College was honoured to award the Co Galway historian and campaigner for the Tuam Survivors, Catherine Corless an Honorary Doctorate of Literature for the tireless work that led to the setting up of the Mother and Baby Home Commission. Leading feminist historian, Catherine Marshall

// In September, Dublin's new landmark cultural institution, the Museum of Literature Ireland (MoLI) opened its doors on Culture Night. Since the opening, both faculty and students in the College have enjoyed many collaborations, including events, talks and tours //



Pictured at the Arts and Humanities Alumni Advisory Group inaugural meeting were: (l-r) Evan O'Quigley, Prof Sarah Prescott, Fiona Mullan, Sarah Gordon, Aoifa Smyth, Joe Hackett, Michael O'Keefe, Ruth Ní Loinsigh, Adrian Mullett and Niall O'Flynn.

**College structure**

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

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

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

As at 1 September 2019

was also awarded an Honorary Doctorate of Fine Arts for her innovative exhibitions and contribution to Irish art. Irish-language activist, poet and writer Pádraig Ó Snodaigh was presented with an Honorary Doctorate of Celtic Literature for his incredible contribution to Irish language publishing and poetry since the mid twentieth century.

The College welcomed twelve new faculty members, across five of its seven Schools, mainly through the UCD Ad Astra Fellows recruitment scheme: Victoria Durrer, Seán Leatherbury (UCD School of Art History and Cultural Policy); Sarah Comyn, Treasa De Loughry, Adam Kelly, Martha Shearer (UCD School of English, Drama and Film); Steffen Rimner, Lindy Brady and Irial Glynn (UCD School of History); Róna Nic Congáil. Fangzhe Qiu (UCD School of Irish, Celtic Studies and Folklore); Tomas McAuley (UCD School of Music). In conjunction with the Ad Astra Fellowship scheme, the College also announced seven funded PhD Studentships across a broad range of projects.

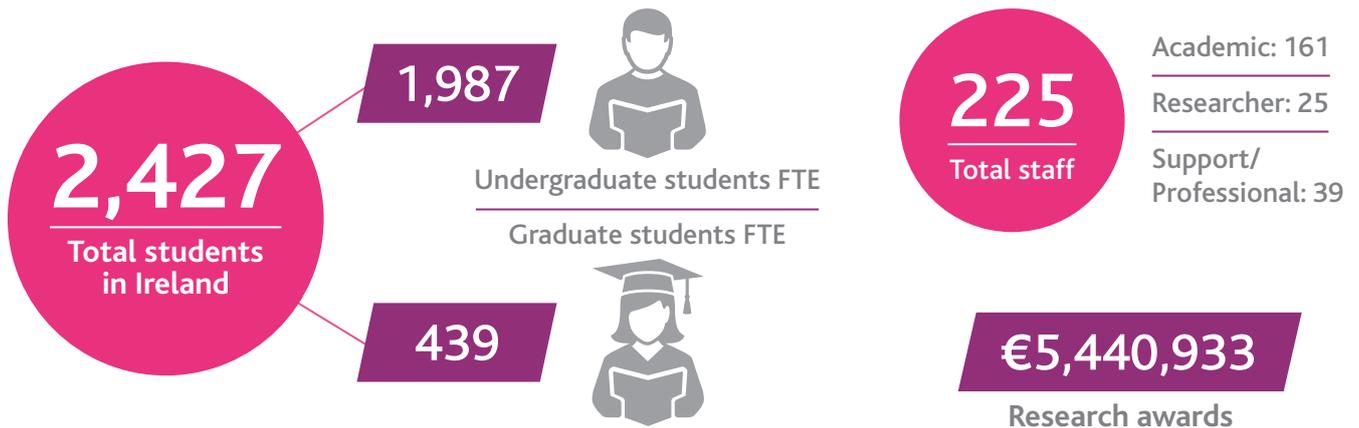
**Professor Sarah Prescott**  
 College Principal and Dean of Arts and Humanities

**12**

new faculty members recruited, mainly through the UCD Ad Astra Fellows recruitment scheme



Author Sarah Moss joins UCD School of English, Drama and Film as Assistant Professor of Creative Writing, pictured with Prof John Brannigan, Head of School.





# COLLEGE OF BUSINESS



The UCD Moore Centre for Business includes interactive learning hubs, a 320-seat lecture theatre, and extensive co-working zones designed to mimic those in start-ups and innovation hubs. Pictured at the launch are (l-r): Assoc Prof Maeve Houlihan, Prof Andrew Deeks, Angela Moore and Prof Anthony Brabazon.



**Professor Anthony Brabazon**  
College Principal and  
Dean of Business

I am pleased to report that the UCD College of Business had a successful academic year with important achievements across educational activities, research and community engagement.

The year started on an auspicious note with the opening of the impressive UCD Moore Centre for Business. This €20 million investment in the future of our students was made possible by founding donor and business leader Angela Moore, in memory of her late husband, UCD Business alumnus George Moore. Principal corporate partners in this initiative include PwC and KPMG, with notable contributions from UCD Business Alumni, EY and the Mont Kavanagh Trust. The Centre's new features, including a state-of-the-art media suite and eLearning facilities,

would prove in due course to be a critical enabler in the College's transition to remote learning and virtual student engagement during the COVID-19 pandemic. I would like to warmly thank College staff and faculty for their outstanding efforts in adapting to the challenges posed by COVID-19 during the year.

As Ireland's Global University, UCD and the College of Business place a special emphasis on the celebration of diversity in our community and on making an impact on the international stage.

## €20m

invested in the impressive  
UCD Moore Centre for  
Business

The first half of the year saw many of our students undertaking overseas exchanges with our academic partners. These international exchanges are supported by a vibrant range of activities on-campus which seek to promote intercultural understanding. Initiatives include the *Quinn Buddy Programme* which helps students to

connect with each other to improve their language proficiency and share intercultural knowledge, and the *Intercultural Development Programme*, now in its second year, which provides a co-curricular experience designed to develop intercultural understanding and communication skills for over five hundred UCD Smurfit School students.

Several conferences exploring themes of international business were hosted by the College during the year including the *UCD Africa Business 2020 Conference*, the *Africa: Place, Belongingness, Entrepreneurship and Sustainable Development Workshop*, as well as the *MISFIRES Conference on Market Failures and Activism in Healthcare* which featured experts from around the globe.

In the midst of the COVID-19 pandemic, it is important that we remain outward looking and forward thinking. In June, we launched an innovative collaboration with Fordham University. The postgraduate programme will allow students to study for one year in New York City and one year in Dublin over the two-year programme, gaining experience and expanding their personal and business networks in each location.

We continue to actively engage in global networks of peer-business Schools, namely CEMS, GNAM, PIM, PRME and Unicon. These networks have proven invaluable in facilitating contact with colleagues internationally as we collectively looked to 'sense-make' and adapt in response to the COVID-19 pandemic.

During the year, faculty were highly active in securing external funding awards. The largest single award, supported by Science Foundation Ireland, was led by Professors John Cotter and Thomas Conlon for their research project titled *Fintech Fusion*. Professor Valerio Poti, Professor Don Bredin and Assistant Professor Dr Alessia Paccagnini secured a Horizon 2020 Award also in the FinTech

domain, while Professor Donna Marshall with Dr Hakan Karaosman secured Horizon 2020 funding for the *Fashion's Responsible Supply Chain Hub (FReSCH)* project.

Other significant awards secured during the year included that of Professor Andreas Hoepner from the Swedish Foundation for Strategic Environmental Research, and Science Foundation Ireland funding for *AI for Anti-Greenwashing*; Dr Paula Carroll from the Sustainable Energy Authority of Ireland (SEAI); and Professor Gerardine Doyle and her team who received a number of funding awards for their work on connected health, value measurement in health service delivery and health literacy.

Many faculty had their research contributions recognised by external bodies. Professor Niamh Brennan was admitted to the Royal Irish Academy; Professor Donna Marshall became the first Irish President of the International Purchasing and Supply Education and Research Association (IPSERA); and Professor Andreas Hoepner was honoured as *Irish Sustainable Finance Person of the Year* by Sustainable Nation Ireland.

The Academy of Management (AoM) annual conference is the world's premier academic conference in the area of management

// During the year, faculty were highly active in securing external funding awards. The largest single award, supported by Science Foundation Ireland, was led by Professors John Cotter and Thomas Conlon for their research project titled *Fintech Fusion* //



Students welcomed US Ambassador to Ireland Edward F Crawford to launch the new Impact Makers Speaker Series. Pictured (l-r) are: Caroline Shakour '20 MBA; Sachin Itgampalli '20 MBA; HE Edward F Crawford, US Ambassador to Ireland; Prof Gerardine Doyle, Director of UCD Smurfit School; Satyaki Ganguly '20 MBA; Sreelakshmy Koonath '20 MBA; and Siún Tobin '20 MBA.

## College structure

**Professor Gerardine Doyle**  
Associate Dean and Director  
of UCD Smurfit School

**Associate Professor  
Maeve Houlihan**  
Associate Dean and Director  
of UCD Quinn School

**Professor Don Bredin**  
Associate Dean International

**Helen Brophy**  
Director of UCD Smurfit  
Executive Development

**Professor Donna Marshall**  
Vice-Principal of Research,  
Innovation and Impact

**Professor Séamas Kelly**  
Vice-Principal of Teaching  
and Learning

**Professor Andreas Hoepner**  
Vice-Principal of Equality,  
Diversity and Inclusion

As at 1 September 2019

# 21st

position was attained by the Smurfit School in the Financial Times (FT) European Business School rankings

and organisation research. This year, several of our faculty won special recognition at the conference for their academic contributions. Professor Karan Sonpar and Professor Federica Pazzaglia, along with their co-author Hardik Agarwal (IIT Delhi), won the highly-prestigious 'Best Overall Paper Award' at the AoM 2020 Conference from the Careers Division, for their paper, 'Identity Work of Persistent Liminars following Voluntary Career Change'. Also, at this conference, Dr Penelope Muzanhenamo, along with co-author Dr Rashedur Chowdhury, was awarded 'Best Critical Management Learning and Education Paper 2020', for the work titled 'Divergent Perspectives on Diversity and Inclusion: Reconceptualizing & Advancing Black Scholarship'. Professor Mark Pagell was recognised as the 2020 Distinguished Scholar by the Academy of Management's Operations and Supply Chain Management Division (OSCM).

Along with colleagues in other Colleges, faculty in the College of Business adapted their research agendas during the year in

response to the COVID-19 crisis. Professor Susi Geiger led a team of researchers in a European study, *Solidarity in times of a Pandemic*, examining how citizens respond to measures imposed by governments to enable policy-makers to build more effective crisis management strategies in the future.

Further extending work into decision-making behaviours, Assistant Professor of Marketing Julie Schiro investigated *Social Distancing & Mask-wearing in Response to COVID19*, while Drs Annunziata Esposito Amideo, Alessia Paccagnini and Luca Pistilli participated in *SMARTER4COVID-19: An Interdisciplinary Approach to Support Decision-Making for COVID-19 and Future Pandemics*.

Drs Orla Byrne, Julia Backmann and Luca Pistilli looked at how entrepreneurs were navigating the pandemic in the project *Coping with Covid: Resilience strategies of entrepreneurs during the pandemic*, and Dr Darren Thomas Baker expanded his research on precarious work in *Stepping into leadership: Understanding the careers and leadership practices of women and men in precarious occupations in the UK, Ireland and Australia*.

Professor Niamh Brennan, Dr Victoria Edgar and Dr Sean Power published *COVID-19 Profit Warnings: Delivering Bad News in a Time of Crisis*, while Dr Sabina Stan and Professor Roland Erne examined *The EU's New Economic Governance Prescriptions in Healthcare (2009-2019): Preparing the Bed for the Covid Pandemic*.

Despite global turbulence, the UCD College of Business has continued to deliver world-class business education and to enhance its reputation as an international leader of relevant and impactful business research. The external rankings of many of the College's degree programmes improved during the year, with the UCD Smurfit School attaining a best-ever placing of 21st among European Business Schools on the prestigious Financial Times (FT) European Business School rankings. Also noteworthy was the global FT ranking of 7th for the School's MSc International Management, and also a first-ever ranking from the FT for the School's Executive Education customised programmes.

The College actively maintained strong links with alumni and extended our external partnerships during the year. The first group of students participated in the Quinn Alumni



In November, Helen Brophy, Director of UCD Smurfit Executive Development hosted (l-r): Ronan Harris, Managing Director of Google UK and Ireland; Leo Cullen, Head Coach of Leinster Rugby; and medical doctor and author Dr Mark Rowe to discuss 'Empowering Leadership throughout an Organisation'.

// Despite global turbulence, the UCD College of Business has continued to deliver world-class business education and enhance its reputation as an international leader of relevant and impactful business research //

Mentoring Programme which paired them with alumni to gain insights into the business and personal skills required to succeed in today's competitive economy. Students also had the opportunity to meet leaders including the US Ambassador to Ireland, Edward F Crawford, and Dr Rhona Mahony, first female Master of the National Maternity Hospital, through the new *IMPACT MAKERS: UCD Smurfit MBA Speaker Series*. The UCD Business Impact Podcast series was also initiated featuring industry leaders, alumni and faculty speaking on a range of cutting edge topics.

As we continue to face the COVID-19 pandemic the need for informed debate, decision-making, and leadership has never been greater. The College remains focussed on its contribution to UCD's strategic themes as we seek to rebuild economies and rethink our institutions and societal priorities.



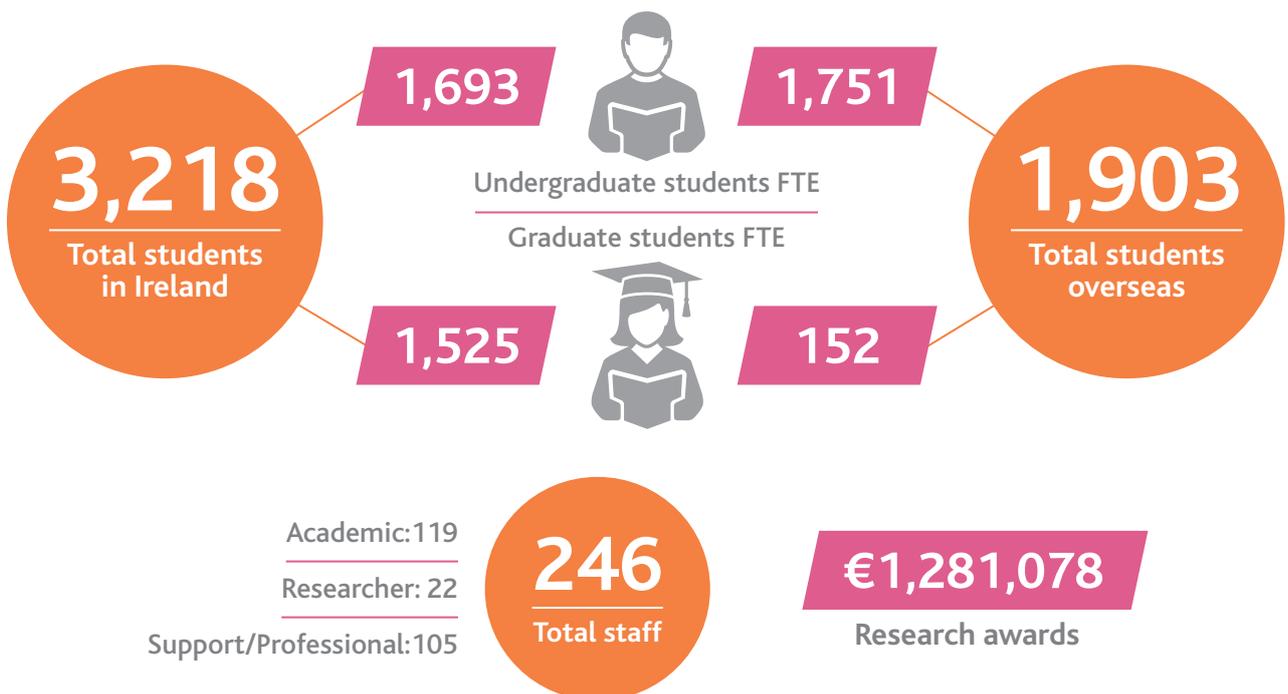
**Professor Anthony Brabazon**  
College Principal/Dean UCD College of Business

**Professor Brian Fynes**



This year saw the sad passing of one of our UCD College of Business community, Professor Brian Fynes. Brian significantly contributed to the development of operations management/supply chain as a research area in Europe and placed Ireland and UCD firmly at the global forefront of research in the field. In June 2020, he received the highly prestigious EurOMA Fellowship Award in recognition of his contribution and impact in the field of operations management over an accomplished career.

Brian was appointed as Ireland's first Full Professor of Supply Chain Management in 2007 and served as Head of the Management Subject Area from 2007-2016. In this role, he was pivotal in driving the growth of the subject area while preserving a collegiate, research-oriented ethos. Professor Fynes also held many other leadership positions including Associate Dean (International) where he made significant contributions to the development and management of the College's international portfolio of programmes and growing its international footprint. Brian's enthusiasm for his subject and generosity as an academic is also evidenced by the impressive international network of co-authors he built over his career, and by the number of colleagues, junior academics, and students whose life he touched. We will miss him.



2019 EGA & AGA Medal Recipients. Back row (l-r): Paul Duff, Engineering Management; Iseult McCullough, Architecture; Conor Smyth, Electronic Engineering; Fionn Robinson, Chemical & Bioprocess Engineering; Ryan Kelly, Civil Engineering; Sophie Vaughan, Engineering with Business and Danielle Aboud, Biomedical Engineering. Front row (l-r): Emma Cooney, Architecture; Roseanne Dizon, Structural Engineering with Architecture; Elva Casals Sadlier, Mechanical Engineering; Gunda Hildebrand, Biosystems Engineering and Rachel Perkinson, Electrical Engineering.



# COLLEGE OF ENGINEERING AND ARCHITECTURE



**Professor Aoife Ahern**  
College Principal and  
Dean of Engineering

## College structure

**Professor Hugh Campbell**  
Dean of Architecture

**Mr Daniel Sudhershan**  
Associate Dean of Architecture

Notwithstanding the challenges presented by the COVID-19 pandemic, 2019/20 has been a year of great successes for the College which continues to strengthen and develop our major areas of activity. Celebrating an Engineering centenary and prestigious accolades to current and former staff were some of the highlights.

In Oct 2019, the College won its Athena SWAN Bronze Award. The College's Gender Equality Implementation Team ably chaired by Associate Professor Beth Shotton (VP EDI) continued its work to deliver on its far-reaching Gender Equality Action Plan 2019-23, designed to mainstream gender equality across our Schools. New initiatives were launched to support commitment to gender balance on College committees and in leadership roles, in recruitment advertising, and in support of research and innovation activities. A process for the annual monitoring of Gender Balance in our Research Centres 'to assess compliance with SFI and EC mandates for at least 40% female researchers to encourage active recruitment of female faculty as PIs and recruit new female

researchers to funded roles was also launched.

## Education and Student Experience

The College's suite of taught programmes continues to attract a diverse community of students from within Ireland and across the globe. And, in 2019/20 our Engineering programmes underwent successful accreditation with the relevant professional bodies. Notably, the UCD Engineering undergraduate programme saw a significant increase in its female intake from 28% to 34% which is testament to the College's recruitment efforts with a heightened focus on female recruitment and gender equality in this traditionally male-dominated discipline.

With the announcement of the COVID-19 national lockdown in March 2020, our teaching and learning community rallied, successfully transitioning teaching and assessment to an online format which enabled our students to complete their studies. In April 2020, Associate Professor David Timoney was appointed Associate Dean of Engineering. This year, the College hired its first educational technologist as part of a UCD-IUA initiative and this post, with the stewardship of the VP T&L, played a significant role in supporting faculty adapt to the online teaching and learning environment and plan for future delivery.

Our Internship Managers supported increased numbers of in-programme placements in Engineering and Landscape Architecture, and most of our students were able to successfully complete full internships with their employers rather than having them curtailed. Strong employer assessments highlighting both the quality and professionalism of our students is testament to the quality of our programmes and the importance of the internship element.

Throughout the year, the College maintained a high level of global engagement activities resulting in a strong overseas intake for 2020 undiminished by the COVID-19 pandemic where global recruitment activities pivoted to online delivery and strong applicant conversion interventions.

# €18.3m

in new external funding awards were registered, representing over 15% of the funding awarded to the University



Prof Madeleine Lowery, UCD School of Electronic and Electrical Engineering received the 2019 NovaUCD Invention of the Year Award for her Handalysis invention.

## College Developments

The College continues its leading role in the UCD Future Campus development plan with planning continuing apace for the new Centre for Creativity, the College's new flagship home for Architecture, Planning and Environmental Policy and Civil Engineering, along with College-shared workshops, laboratories, studios and learning spaces.

The Chang'an-Dublin International College of Transportation (CDIC), a partnership collaboration between UCD and Chang'an University was formally established in 2020. There are now three dual degrees offered in CDIC: the BE in Automotive Engineering, the BSc in Transport, City Planning and Environmental Engineering for entry September 2020, and the BE in Civil Engineering Infrastructure now in its second year.

## Research, Innovation and Impact

Research and innovation performance in the College has continued to be very strong, with high impact. Awards totalling €18.3 million in new external funding were registered and represents over 15% of the funding awarded to the University.

Specific projects funded by SFI's COVID-19 Rapid Response programme include: Professor Madeleine Lowery, School of Electrical and Electronic Engineering (SEEE) for research on using smartphone technology for monitoring respiration in COVID-19 patients at home; Professor Michael Gilchrist, School of Mechanical and Materials Engineering (SMME) is developing plastic packaging and film that is resistant to COVID-19; Professor Denis Dowling, SMME and Director of I-Form, the SFI Research Centre on Advanced Manufacturing is using 3D printing to provide personal protective equipment for hospitals and other healthcare settings; Associate Professor John O'Sullivan, School of Civil Engineering (SCE), is also participating in a project entitled 'SARS-CoV-2 in sewage and bodies of water'.

Many other innovative initiatives to help address COVID-19 were established. Dr Colin Keogh, SEEE and his collaborators were founding members of Open Source Ventilator (OSV) Ireland to develop new low resource interventions and COVID-19 related medical supplies. Dr Kevin Nolan, SMME is also undertaking multidisciplinary work with doctors at the Mater Hospital in Dublin to evaluate how droplets carrying the COVID-19 virus travel and the impact face coverings have on its spread.

Funding awarded from a range of highly competitive and prestigious European programmes included three Marie Skłodowska-Curie Innovative Training Network Training Networks (ITNs) led by: Dr Fionnuala Murphy, School of Biosystems and Food Engineering (SBFE), Dr James O'Donnell, SMME, and Associate Professor Damian Flynn, SEEE.

College faculty involved in collaborating on a range of other European projects to address global challenges in areas relating to Energy, Transport, Food Security, Manufacturing, and Future & Emerging Technologies, which align with the themes of UCD's Strategy 2020-24: Rising to the Future include: Dr Federico Milano, SEEE, Associate Professor Francesco Pilla, School of Architecture, Planning and Environmental Policy (APEP), Professor Denis Dowling, SMME, and Professors Colm O'Donnell and Enda Cummins, SBFE.

## College structure

### Associate Professor

#### Elizabeth Shotton

Vice-Principal for Equality, Diversity and Inclusivity

### Professor Ravi Thampi

Vice-Principal for Internationalisation

### Professor John Sheridan

Vice-Principal for Research, Innovation and Impact

### Associate Professor

#### David Timoney

Vice-Principal for Teaching and Learning

### Dr Neal Murphy

Graduate School Director

**UCD College of Engineering and Architecture consists of six schools:**

### Associate Professor

#### Eoin O'Neill

Head of School, UCD School of Architecture, Planning and Environmental Policy

### Professor Colm O'Donnell

Head of School, UCD School of Biosystems and Food Engineering

### Professor Eoin Casey

Head of School, UCD School of Chemical and Bioprocess Engineering

### Associate Professor

#### Amanda Gibney

Head of School, UCD School of Civil Engineering

### Professor Peter Kennedy

Head of School, School of Electrical and Electronic Engineering

### Professor Kenneth Stanton

Head of School, UCD School of Mechanical and Materials Engineering

As at 1 September 2019



Yvonne Farrell and Shelley McNamara, founders of Grafton Architects, who were awarded the 2020 Royal Gold Medal winner by RIBA.

// There have been many successes and awards throughout the year that demonstrate the College's very strong culture and capacity for working with industry, innovation, and impact //

New international collaborations were also awarded through the SFI US-Ireland R&D Partnership programme. Professor Paula Bourke, SBFE was awarded a SFI US-Ireland R&D Partnership collaborative project entitled 'Plasma-based therapies for bone infection'. Associate Prof Simon Kelly, SEEE received funding for 'Uncovering the neural architecture underlying decisions abstracted from movements'.

There have been many successes and awards throughout the year that demonstrate the College's very strong culture and capacity for working with industry, innovation, and impact. In December 2019 Minister for Business, Enterprise and Innovation, Heather Humphreys TD, and Minister for Employment Affairs and Social Protection, Regina Doherty TD announced 16 Disruptive Technologies Innovation Fund (DTIF) awards nationally, three of which combined received over €14.9m and involve members of the College:

- Professor Bogdan Staszewski, SEEE is participating in the QCoIR Quantum Computing in Ireland consortium. Led by IBM Ireland Ltd, it also involves Tyndall National Institute; Maynooth University; Rockley Photonics Ireland; Equal1 Laboratories Ireland, a UCD spin-out headquartered at NovaUCD; and MasterCard Ireland.

- Associate Professor Eoin O'Cearbhaill, SMME is part of the Pharma Latch project consortium, with lead partner Latch Medical, a UCD spin-out headquartered at NovaUCD; Blueacre Technology; and TheraDep.
- Dr Jufan Zhang, SMME is participating in the EyeVU project consortium with lead partner Tympany Medical; Genetian Services; and NCAD.

Associate Professor Shane Donohue, SCE was awarded an SFI Frontiers for the Future Project to conduct 'high-risk, high-reward' research on 'Geophysical and Earth Observation Tools for Evaluating the Condition of Slopes (GEOTECS)'.

The 2019 NovaUCD Innovation Awards announced in July 2020 recognise many faculty achievements. Professor Madeleine Lowery, SEEE won the NovaUCD Invention of the Year Award for her Handalysis invention. Involving multiple Schools, Associate Professors Francesco Pilla (APEP) and David Timoney (SMME), Professor Robert Shorten and Assistant Professor Giovanni Russo (SEE) won 2019 NovaUCD Consultancy of the Year Award for a consultancy study commissioned by Toyota Ireland, through ConsultUCD. Professor Eoin Casey and Dr Eoin Syron, School of Chemical and Bioprocess

Engineering and Dr Barry Heffernan won the 2019 NovaUCD Licence of the Year Award for the licensing of the Membrane Aerated Biofilm Reactor (MABR) technology to OxyMem, a UCD spin-out company that they, and Wayne Byrne, co-founded in 2013.

Publication output from Faculty continues to be of extremely high quality and impact from across the College. For instance, Professors Da-Wen Sun, Colm O'Donnell and Enda Cummins, SBFE, are each listed among the top 1% of the most cited researchers in the world by the Highly Cited Researchers report, compiled by Clarivate Analytics. This is an indicator of the global authority they each have in their respective fields, and it is the fifth time that Professors Da-Wen Sun and Colm O'Donnell have been listed.

### Engagement and Partnership

The UCD Engineering Graduates Association (EGA) events opened with the annual EGA Gold Medal and Award Ceremony in September 2019, at which EGA Gold Medals were presented to students excelling in their disciplines. Other EGA events included:

- Presentation of the EGA Distinguished Graduate Award 2019 to John O'Dea, UCD Engineering Graduate and former CEO of Crospon in recognition of his extraordinary career to date. This event also saw the presentation of the EGA Lifetime Achievement Award (posthumously) to Michael Loughnane, formerly of ESB and EGA President 2008-2012, to acknowledge his commitment and contributions to industry during his career.
- The Autumn Panel Discussion on 'Artificial Intelligence' brought together industry panellists to share their thoughts on the development of AI and surrounding technologies, its legal implications, and applications in the modern world.
- The EGA Annual General Election saw the election of its first female President, Ms Majella Henchion, ESB who will lead the EGA into an exciting new era of engagement with students and Engineering alumni. Mr John Power's successful EGA presidency

concluded its four-year term, and his leadership is gratefully acknowledged.

- In response to COVID-19 restrictions, the 2020 Spring Panel Discussion was postponed.

### Community

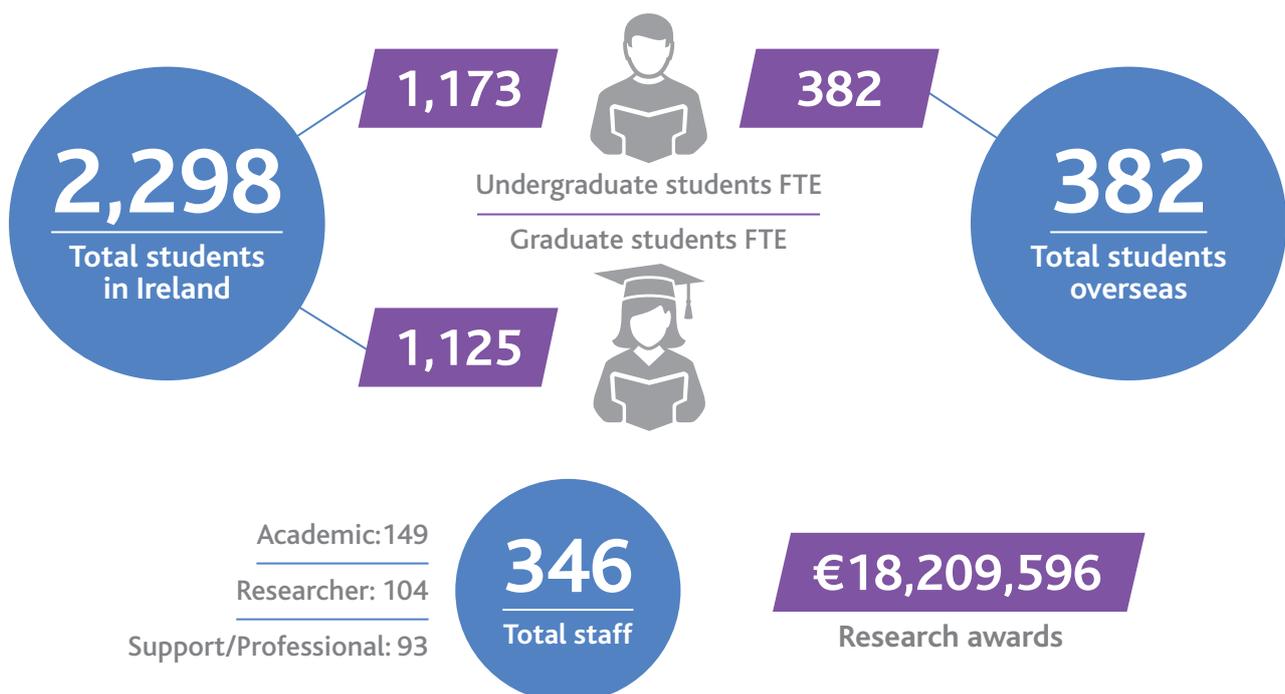
In October 2019, renowned Irish architects Yvonne Farrell and Shelley McNamara, former adjunct professors at APEP and founders of Grafton Architects received the UK's highest honour for architecture when they were awarded the prestigious 2020 RIBA Royal Gold Medal. The RIBA said they had been nominated by a "roll-call of significant names from the worlds of academia, arts and architecture, major clients and renowned architects". In February 2020, Professor Hugh Campbell hosted a successful London-based alumni event at Yvonne and Shelley's RIBA Gold Medal Lecture. In March 2020, they were named the 2020 laureates of the Pritzker Architecture Prize, their profession's highest honour. Our College extends its continued congratulations to these distinguished Irish architects.

The centenary celebration of the UCD Schools of Civil, Electrical and Electronic, and Mechanical and Materials Engineering took place in October 2019. This historic occasion was marked with a black-tie gala dinner in O'Reilly Hall where Engineering alumni gathered with their classmates and friends for a memorable night of celebration, reconnection, and nostalgia.



**Professor Aoife Ahern**

College Principal and Dean of Engineering



Students from UCD School of Veterinary Medicine celebrate UN International Day of Women and Girls in Science.



# COLLEGE OF HEALTH AND AGRICULTURAL SCIENCES



**Professor Cecily Kelleher**  
College Principal

Faculty, staff and students across the College drew on their expertise to respond to the events of this remarkable year, many making substantial contributions to the national effort. As ever, there were many achievements and activities to be celebrated across the College.

The vision of UCD One Health, central to the College strategy, is to maximise the health and well-being of humans, animals and the environment through academic excellence, collaborative research, education and outreach. This summer the College, led by the Vice-President for Global Engagement, Dr Pat Felle and his team hosted the Universitas 21

Health Science Group Annual Meeting on the theme of 'One Health: A Collaborative Approach to Health.' Professor Stephen Gordon was the lead Academic Coordinator of the programme of events. The online conference was a resounding success, with over 400 delegates, and also saw the launch of a U21 University Mental Health Declaration.

## 400+

delegates attends the online Universitas 21 Health Science Group Annual Meeting

The College established its Equality, Diversity and Inclusion Committee this year, chaired by Professor Torres Sweeney. This committee provides a forum for sharing knowledge and best practice models across the Schools, as well as for developing cross-cutting initiatives. Activities this year have included the creation of a cross-college Neurodiversity Working

## // Agriculture and Forestry climbed into the top 50 in the QS World University Rankings by Subject and is one of four top 50 ranked subjects in UCD //

Group, as well as hosting a series of online workshops supporting colleagues across the College in the Faculty Promotions Process. Three of the College's Schools now hold an Athena SWAN award: School of Medicine, School of Agriculture and Food Science, and School of Veterinary Medicine.

The UCD Health Affairs unit works in collaboration with the Health Science Schools to provide a formal channel for cooperation between the Ireland East Hospital Group (IEHG) and UCD. This year they established an Academic Health Science Centre lecture series, which saw a number of academics and clinicians give lectures across SVUH, MMUH and UCD.

The School of Agriculture and Food Science, in conjunction with NovaUCD, was awarded €3 million in funding to develop an AgTech Connector Innovation Hub at UCD Lyons Farm in Co Kildare. The Hub will bring together the AgTech ecosystem in UCD and Ireland to accelerate the launch and scaling of AgTech companies.

Agriculture and Forestry climbed into the top 50 in the QS World University Rankings by Subject and is one of four top 50 ranked subjects in UCD.

The School of Agriculture and Food Science was instrumental in establishing a new international college in China; the Guangzhou-Dublin International College of Life Sciences and Technology (GDIC) at South China Agricultural University. GDIC will offer dual-degree programmes in horticulture, biological sciences and food safety & security with the first students enrolling in September 2020.

Systems Biology Ireland is one of the partners on the largest-ever Innovative Medicine Initiative 2 Immunology project which aims to improve disease management of non-responders to therapy across seven immune-mediated diseases. Professor Walter Kolch and Dr David Gomez led the Systems Biology Ireland participation in the €80 million four-year 3TR initiative which kicked off their activities with a first meeting in Granada, Spain.

This year also saw the launch of new programmes as well as the expansion of existing ones. The School of Medicine completed the expansion of its undergraduate entry radiography programme and introduced a new graduate entry route. Long before virtual learning became a necessity, Professor Des Tobin, Director of the Charles Institute developed and executed a highly successful and extremely

# €3m

in funding awarded to develop an AgTech Connector Innovation Hub



Pictured at the UCD Mater Lean Symposium (l-r): Seán Paul Teeling, UCD School of Nursing, Midwifery and Health Systems; Maria Creed, Mater Hospital; Mark Graban; Michelle McGuirk, Mater Hospital; Vanessa Kelly, Mater Hospital; and Aileen Igoe, Mater Hospital.

## College structure

### Professor David MacHugh

Vice-Principal for Research Innovation and Impact

### Associate Professor

#### Sue Rackard

Vice-Principal for Teaching and Learning

### Associate Professor Pat Felle

Vice-Principal for Global Engagement

### Professor Tim Lynch

Vice-Principal for Health Affairs

### Professor Alex Evans

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

### Professor Michael Keane

Head of School and Dean, UCD School of Medicine

### Professor Gerard Fealy

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

### Professor Catherine Blake

Head of School, UCD School of Public Health, Physiotherapy and Sports Science

### Professor Michael Doherty

Head of School and Dean, UCD School of Veterinary Medicine

As at 1 September 2019

// The practice education team in Physiotherapy, led by Dr Sinead McMahon developed an eHealth/telehealth alternative allowing their students to continue their learning to achieve placement outcomes, in response to COVID-19 //

popular online Professional Certificate in Dermatology. Other new programmes launched this year include Mental Health for General Practitioners, a new Masters programme in Artificial Intelligence for Medicine and Medical Research and a Masters programme in Data Analytics for Precision Medicine.

The School of Nursing, Midwifery and Health Systems hosted several webinars and online workshops, including an interactive research grant writing workshop in collaboration with MERU University of Science and Technology in Kenya.

In partnership with the Mater University Hospital's Lean Academy, the UCD School of Nursing, Midwifery and Health Systems hosted a Masterclass with Mark Graban, an internationally recognised consultant,

author and speaker in process and quality improvement. Fifty graduates of the School's Process Improvement in Healthcare programmes from across Ireland attended the Masterclass. Mr Graban also contributed the editorial to a special issue of the *International Journal for Quality in Healthcare*, compiled by School faculty, members of the Mater Lean Academy, and graduates of the School's Process Improvement in Healthcare programmes.

The MSc in Sports Management at the School of Public Health, Physiotherapy and Sport Science has again been ranked among the best in the world, according to a new global survey. Ranked 39th globally and 16th in Europe by SportBusiness International, a leading voice for the sport business community.



Students from UCD School of Agriculture and Food Science continue to make their mark winning the Great Agri-food Debate trophy for the fourth time. Held for the first time in Northern Ireland, the two-day event saw a team from UCD match wits with last year's winners Waterford Institute of Technology Students from UCD School of Agriculture and Food Science continue to make their mark winning the Great Agri-food Debate trophy for the fourth time. Held for the first time in Northern Ireland, the two-day event saw a team from UCD match wits with last year's winners Waterford Institute of Technology (WIT) over farmer subsidies.

The practice education team in Physiotherapy, led by Dr Sinead McMahon, developed an eHealth/telehealth alternative allowing their students to continue their learning to achieve placement outcomes, in response to COVID-19. The module facilitated small group active learning sessions and practice in a structured environment with simulated patient groups, and delivery of physiotherapy services via telehealth to groups of clients. This initiative was made possible due to the existing, award-winning, university-based placement Physiotherapy Hub at UCD Sport.

UCDVO activities continued despite this year's travel restrictions. Physiotherapy, Nutrition, and Dietetics students participated in a pilot virtual volunteering project with UCDVO partner Nurture Africa in Uganda. Led by a team coordinator, a physiotherapy tutor and a nutrition and dietetics tutor, the team worked with staff in Uganda over a four-week period to develop physiotherapy and nutrition resources, deliver online workshops to parents and assisted in organisation of a summer camp for children with disabilities.

The UCD Veterinary Microbiology Diagnostic Laboratory (VMDL), based in the UCD Veterinary Hospital, was recently granted approval as a Training Centre of the European College of Veterinary Microbiology (ECVM). The ECVM is a recently established constituent college of the European Board of Veterinary Specialisation and has specialists registered throughout Europe, including Associate Professors Bryan Markey and Finola Leonard. The VMDL forms an essential part of the UCD Veterinary Hospital and provides a high-quality diagnostic service to both the

// UCDVO activities continued despite this year's travel restrictions. Physiotherapy, Nutrition, and Dietetics students participated in a pilot virtual volunteering project with UCDVO partner Nurture Africa in Uganda //

UCD Veterinary Hospital and to external veterinary practices throughout Ireland.

The Veterinary Hospital, thanks to the huge commitment of its staff, continued to provide clinical animal care by operating an emergency service for referring veterinary practitioners throughout the summer lockdown period. An innovative response from faculty in the Veterinary Hospital allowed rapid replacement of face-to-face clinical teaching by remote computer-based clinical cases.

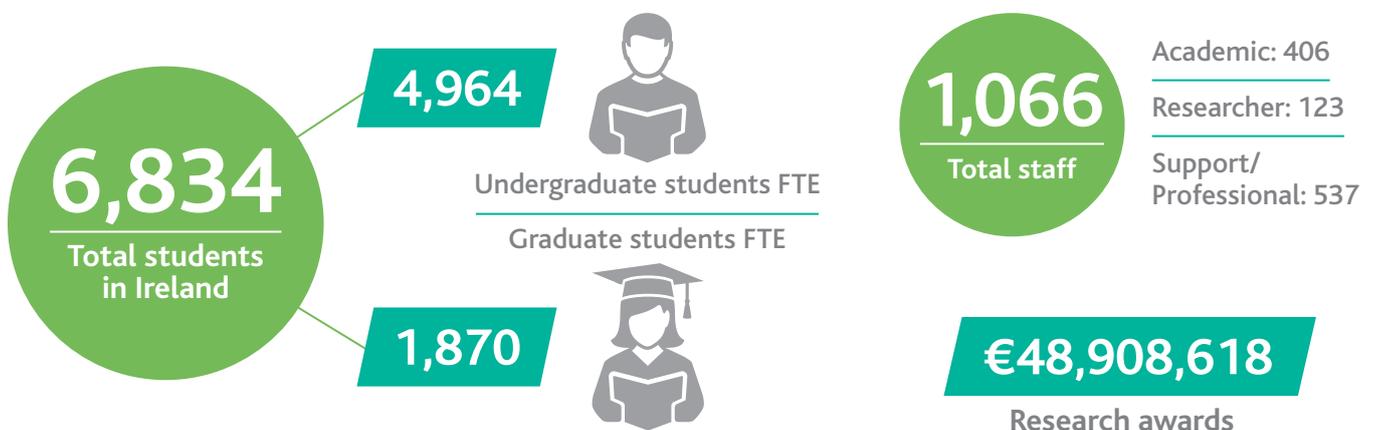
The School of Veterinary Medicine this year established an annual Dean's Inclusion Award, recognising faculty, staff and student contributions to inclusion in both the School and the Hospital.



**Professor Cecily Kelleher**  
College Principal



Faculty and staff from the College celebrating the canonisation of Cardinal John Henry Newman, founder of UCD, and his portrait in Woodview House.



Pictured (l-r) Prof Dolores O’Riordan, VP for Global Engagement; HE Ambassador Mr Paolo Serpi, Italian Ambassador to Ireland; and Prof Patricia Maguire, Director UCD Institute for Discovery.



# COLLEGE OF SCIENCE

Leonardo Da Vinci visits UCD, an extraordinary event celebrating da Vinci and his multidisciplinary work, which took place on 21 November in the UCD O’Brien Centre for Science. The event was supported by the Italian Embassy in Ireland, the Italian Institute of Culture in Dublin, the Mostra di Leonardo exhibition in Rome, UCD School of Physics, UCD Discovery Institute, UCD Conway Institute, the UCD-Wellcome ISSF fund, UCD College of Science, UCD Innovation Academy, UCD Foundation for Italian Studies, UCD Global, the Ambasciatori del Gusto association, Pi Restaurant, Italicatessen, Ciao Bella Roma and Dolce Sicily.



**Professor Joe Carthy**  
College Principal and  
Dean of Science

The academic year 2019/20 has been one of our most challenging years, bringing to mind Dickens’ “worst of times, best of times” quote. The *worst of times* in terms of the dire effects of the pandemic which were felt across the nation. The *best of times* in terms of the magnificent response of so many in the UCD community, not only to keep UCD in operation, but also in supporting local and national needs.

Schools from the College donated PPE and sanitiser to Dublin hospitals and nursing homes. Meanwhile our faculty pivoted within days to full online delivery to ensure that our students received the best possible educational experience under the circumstances. In addition, our researchers are very active in various projects to deal with COVID-19 now and in the future. The College of Science and the UCD community can be very proud of its ongoing response to the COVID-19 pandemic.

## Teaching and Learning

In 2020, the UCD Science undergraduate course had the largest number of first preference applications for a single entry programme at UCD, reflecting the increased popularity of this flagship common entry course. The Science (DN200), Computer Science (DN201) and Actuarial and Financial Science (DN230) courses continue to attract an excellent and diverse cohort of students.

UCD Science, in collaboration with the College of Social Sciences and Law, approved a new cross-disciplinary BSc in Sustainability, under the direction of Professor Tasman Crowe and Professor Jacky Croke, with 40 new entrants due to start the course in September 2020.

The College works closely with UCD Access and Lifelong Learning and continues to widen participation across all the College's undergraduate degrees for students interested in pursuing a degree through alternative pathways, including mature applicants, QQI-FET, HEAR, DARE and Open Learning. Students following these pathways make up over 25% of the UCD Science student intake. A new Academic Mentoring programme was successfully piloted to support these students with 46 academics acting as mentors.

Six student-centred research projects in the College won awards under a new scheme funded by the HEA and the National Forum for the Enhancement of Teaching and Learning. These projects were led by: Dr Marcus Baumann (School of Chemistry), Associate Professor Eimear Byrne, Associate Professor Pauline Mellon and Dr Adamaria Perrotta (School of Mathematics and Statistics), Dr Takfarinas Saber (School of Computer Science), Dr Craig Slattery (School of Biomedical and Biomolecular Science), Dr Sharon Shannon and Associate Professor Emma Sokell (School of Physics), and Dr Adam Kane and Dr Gavin Stewart (School of Biology and Environmental Science).

All of our teaching and assessment moved online in the middle of trimester 2, thanks to huge efforts from our faculty and outstanding support from the College's Educational Technologist, Cesar Scrochi.

## Research and Impact

This has been a very successful year in terms of winning investigator-led research project funding.

Significant SFI award highlights include:

- UCD School of Biology and Environmental Science: €1.5 million to Professor Rory Johnson, for *"Discovering non-protein-coding vulnerabilities in lung cancer with CRISPR-Cas9"*, €1.5 million to Dr Sonia Negrao *"Looking into time – how abiotic stress impacts barley production and malting quality"*, and €1.3 million to Professor Emma Teeling for *"LongHealth: The molecular basis and regulation of longer healthspan in mammals"*.
- UCD School of Physics: €1.3 million to Professor Lorraine Hanlon and colleagues for *"Building on EIRSAT-1: Nanosatellites as a disruptive technology platform for innovation and research in the global space sector"*.
- UCD School of Chemistry: €1 million to Associate Professor Grace Morgan for *"Optical and magnetic integration of surface molecules"*, €0.5 million to Professor Gil Lee and colleagues

// The College works closely with UCD Access and Lifelong Learning and continues to widen participation across all the College's undergraduate degrees for students interested in pursuing a degree through alternative pathways //

# €4.3m

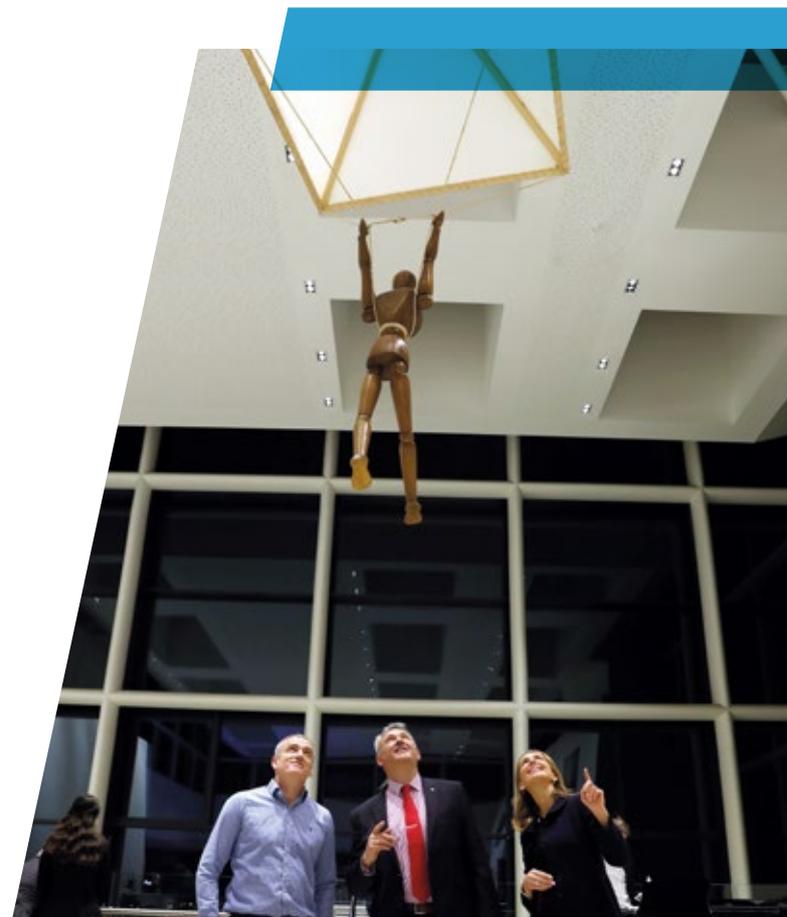
## in funding awarded to UCD School of Biology and Environmental Science from SFI

for "Critical reagent production addressing supply chain risk for COVID-19 diagnostics", and €0.5 million to Dr Elaine O'Reilly for *"Biocatalytic cascades for the synthesis of therapeutic iminosugars from monosaccharides"*.

- UCD School of Biomolecular and Biomedical Science: one of our most exciting COVID-19 research projects is led by Professor Wim Meijer with co-applicants: Dr Nicola Fletcher, (School of Veterinary Medicine), Associate Professor John O'Sullivan (School of Civil Engineering) and other colleagues. This is an SFI-funded project for surveillance of SARS-CoV-2 in sewage and will provide critical information on the prevalence of the virus in the population.

EC awards include:

- UCD School of Biomolecular and Biomedical Science: Professor Wim Meijer and colleagues were awarded €1 million from the ERDF for a project entitled *"ACCLIMATIZE: Phase II"* and



Pictured at Leonardo Da Vinci visits UCD (l-r) are Prof Brendan Murphy, Head of UCD School of Mathematics and Statistics; Bernard Capraro, Intel Research and Development Ireland Ltd; and Prof Patricia Maguire, Director, UCD Institute for Discovery.

## College structure

### Associate Professor

#### Tara McMorro

Associate Dean of Science

### Associate Professor

#### James Sullivan

Vice-Principal for Teaching and Learning

### Dr Antoinette Perry

Vice-Principal for Equality, Diversity and Inclusion

### Professor Jeremy Simpson

Vice-Principal International

### Professor Eleni Mangina

Deputy Vice-Principal International

### Professor Gareth Redmond

Vice-Principal for Research and Innovation

### Dr Jennifer Mitchell

Associate Dean for International Study (North America)

### Associate Professor

#### Siobhán McClean

Associate Dean for Widening Participation

### Associate Professor

#### Paul McCabe

Graduate School Director

### The College of Science consists of seven schools:

### Associate Professor

#### Evelyn Doyle

Head of School, UCD School of Biology and Environmental Science

### Professor Wim Meijer

Head of School, UCD School of Biomolecular and Biomedical Science

### Associate Professor

#### Michael Casey

Head of School, UCD School of Chemistry

Associate Professor Siobhán McClean was awarded €0.9 million from H2020 for "Anti-bacterial innovative vaccine training network".

- UCD School of Computer Science: Professor Eleni Mangina was awarded €0.75 million from H2020 for "Augmented reality interactive educational system"; Dr David Lillis, with partners, will receive €2 million under the Disruptive Technologies Innovation Fund while Dr Ernesto Diaz-Aviles won €0.75 million from Enterprise Ireland for "Privacy preserving and explainable recommendation engine based on AI".
- UCD School of Earth Sciences: Associate Professor Julian Menuge won €0.7 million from H2020 for "New exploration tools for European pegmatite green-tech resources". In UCD School of Mathematics & Statistics, Professor Frederic Dias was awarded €2.5 million for an ERC Advanced Grant entitled "Breaking of highly energetic waves".

Professor Kevin O'Connor, UCD School of Biomolecular and Biomedical Science was winner of the 2019 SFI Researcher of the Year Award, and Professor Frank McDermott, UCD School of Earth Sciences was elected to the Royal Irish Academy.

### Innovation

Associate Professor Dominic Zerulla, UCD School of Physics received a special SFI Future Innovator Prize of €0.5 million to develop

a highly innovative imaging solution that nanoscale optical microscopy.

Professor William Gallagher, UCD School of Biomolecular and Biomedical Science was winner of the 2019 SFI Entrepreneurship Award in recognition of the achievements of OncoMark, which focuses on the development and application of biomarker panels which address critical unmet needs for cancer patients.

SiriusXT, a company co-founded by Dr Fergal O'Reilly and colleagues from UCD School of Physics were awarded €4.5 million from the European Innovation Council Accelerator Pilot programme. This funding will enable them to contribute to the fight against the coronavirus in a pilot of its soft x-ray microscope at leading virology and disease research labs across the EU.

### Global Engagement

Global engagement activities in the College are led by Professor Jeremy Simpson and Professor Eleni Mangina. This year marked the milestone with more than 20% of our registered students being international, with more than 90 countries represented.

Student numbers in the BSc Software Engineering programme at the Beijing-Dublin International College continue to grow, and the involvement of the College in a new partnership with South China Agricultural University, forming the Guangzhou-Dublin



College of Science PhD students and Science Student Leaders Lána Salmon and Orla Sherwood with Gary Dunne from the Science Office at Higher Options. Over 50 undergraduate and postgraduate students are trained as Science Student Leaders to work in science outreach activities throughout the year.

College structure

**Associate Professor Chris Bleakley**  
Head of School, UCD School of Computer Science

**Associate Professor Patrick Orr**  
Head of School, UCD School of Earth Sciences

**Professor Brendan Murphy**  
Head of School, UCD School of Mathematics and Statistics

**Professor Martin Grunewald**  
Head of School, UCD School of Physics

As at 1 September 2019

# 600

pupils from 25 primary schools participated in our schools programme

International College of Life Sciences and Technology, will provide new opportunities for students in the biological sciences.

The College has also been active on the African continent, with a particular highlight being the invitation to judge and present prizes at the Cape Town Young Scientist Expo, attended by more than 500 of the city's emerging young scientific talent. In North America, the MSc in Forensic Computing and Cybercrime Investigation programme received further recognition by establishing a new examination centre in Ottawa, Canada, in collaboration with the Canadian Police College.

**Outreach**

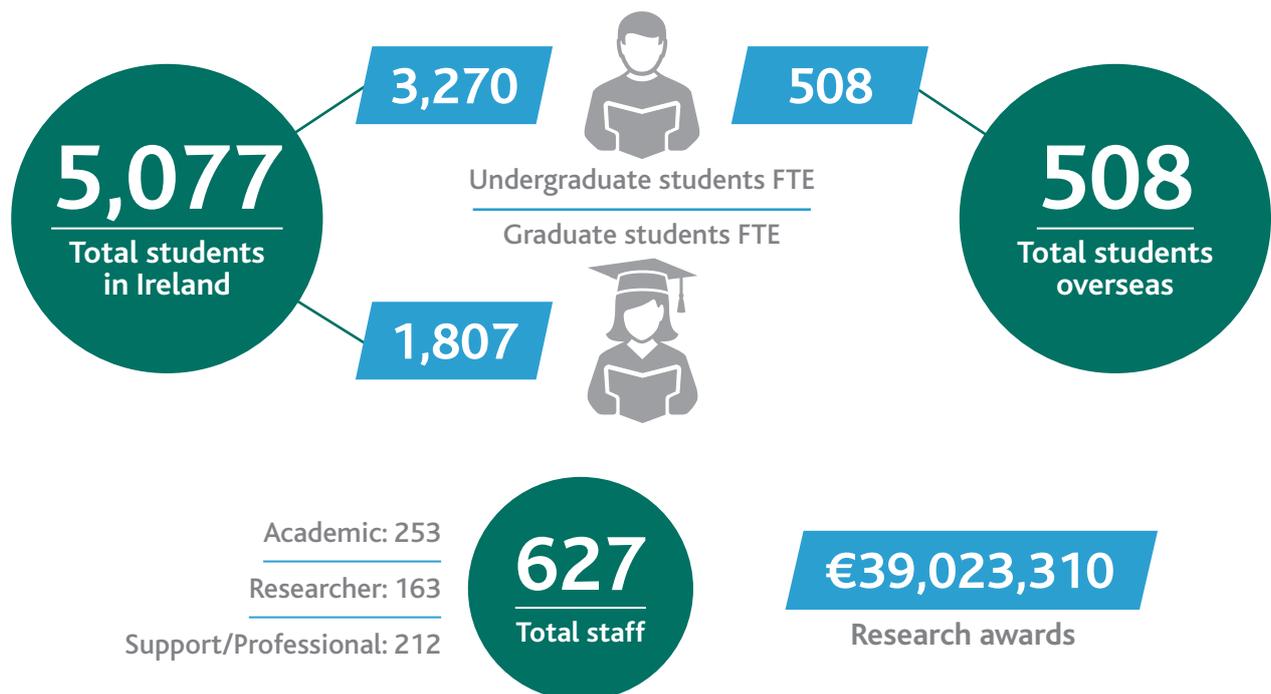
The College continued its very successful UCD Explore programme which allowed 600 pupils from 25 primary schools to participate in our schools programmes. This year we also included a six-week programme for



UCD Explore offers an exciting and educational space for primary school students to play and learn through Science. Pictured are students from St. Louise's, Ballyfermot.

students with mild learning disabilities. The Kilty Discovery Suite was also used by Phil Smyth for RTÉ to deliver a very popular series of Science classes for primary schoolchildren during the pandemic.

**Professor Joe Carthy**  
College Principal and Dean of Science



UCD Sutherland School of Law co-hosted a celebration of Twenty Years of French Law Programmes, pictured (l-r) are: HE Prof Guillaume Leyte, President, University of Paris 2 Panthéon-Assas; Prof Imelda Maher, Dean of Law; Minister Mary Mitchell O'Connor; Stéphane Crouzat, French Ambassador to Ireland; Dr Marie-Luce Paris and Prof Colin Scott.



# 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 2019/20 has been a challenging one but the College maintained its high standard of success across our educational activities, research successes and community engagement.

The COVID-19 pandemic has had an impact on our lives in different ways. As a College we had to adapt to working in new and innovative ways by moving most of our teaching online midway through the Spring trimester and for the assessment period. I am proud of the outstanding achievements of our College academic and professional support staff in facilitating our teaching and

learning, student supports and engagement with the wider community. Researchers in the College have been at the forefront of new research investigating social and behavioural dimensions of the pandemic across areas including health, youth mental health, transport, disability and inequality and contributed to UCD Geary Institute online conferences entitled 'Ireland's COVID-19 Crisis Response: Perspectives from Social Science', across 17 panels featuring both UCD and visiting academics, as well as industry experts.

**TOP 50**  
ranking for Library and  
Information Management in  
the 2020 QS World Rankings

During this period, the College continued to attract major research funding and established new postgraduate programmes and partnerships. The College received recognition in the 2020 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 Studies, Geography, Archaeology, and Social Policy and Administration, and all schools in the College represented in the global top 250.

### Education and Student Experience

The College welcomed over 1,000 new undergraduate students to the Social Sciences and Law degree programmes and more than 1,000 postgraduate students to our programmes in September 2019. Central to our offerings in Social Sciences, the College, in collaboration with UCD College of Science, established the new four-year BSc in Sustainability that allows an option for students to specialise in a social sciences, policy and law pathway from second year. New postgraduate programmes established in 2019/20 included MSc in Behavioural Neuroscience, MSc in Critical Geographies, MSc in Politics and Data Science, MSc in Digital Policy and MSc in Sustainable Development in partnership with the UN Sustainable Development Solutions Network (SDSN). The College also launched new programmes for Continuing Professional Development and to enhance flexible learning via pathway programmes including Graduate Certificate and Professional Diplomas in Public Policy, Professional Certificate and Professional Diploma in Data and Methods for Policy Analysis and a Professional Certificate in Public Administration and Policy. In addition, UCD School of Education launched the MED in

**1,000+**  
new undergraduate students were welcomed to the Social Sciences and Law degree programmes in September 2019



Dr Helen O'Shea, UCD School of Psychology was presented with the Máire de Paor Award for the best research thesis 2018/19. Pictured are (l-r): The late Prof Aidan Moran, Dr Helen O'Shea and Prof Colin Scott.

// Our biggest achievement, even with the immense challenges we have faced, has been to retain a sense of collegiality and collaboration, underpinned by an ethic of care, within the College //

Leadership and Inclusion and Professional Diploma in Middle Leadership and UCD School of Archaeology offered a Graduate Certificate, Graduate Diploma and MSc in World Heritage Conservation as a Pathway programme.

### Teaching and Learning

Despite the difficulty of delivering third-level education during a global pandemic, the Vice-Principal for Teaching and Learning, Dr Niamh Moore-Cherry led the College in rising to these challenges. A focus on supporting and enabling schools, faculty, staff and students to create an excellent educational environment underpinned a number of initiatives and events. Five projects funded under the College's Curriculum Development Call 2019 were piloted during the academic year. The project funding was awarded under two strands to align with our College's educational strategy: Dr Sarah Cooney (Psychology), and Associate Professor Crystal Fulton (Information and Communications Studies) received development funding for new research-learning educational activity while Dr Daniel Deasy (Philosophy), Associate Professor Ainhoa Gonzalez del Campo (Geography) and Dr Rob Sands (Archaeology) received funding to support the development of experiential learning opportunities in Stage 3 of the new BSc Social Sciences programme. In December 2019, the College was awarded just over €30,000 from the National Forum for the Enhancement of Teaching and Learning and ten small-scale projects are being funded.

For the 2019/20, the College T&L Committee identified two strategic enhancement projects: one on tutor and demonstrator training and recognition and the second on technology-enhanced learning. The tutor training and recognition programme will be further developed and rolled out in the 2020/21 academic year. The second project on technology-enhanced learning (TEL) began with an audit in Autumn 2019 of existing practice in the College but the context radically changed in March 2019 as a result of the pandemic. This has involved developing Blended Learning Guides; hosting a webinar on blended learning and a range of other workshops, creating a College Teaching, Learning and Assessment Protocol to guide trimester 1 and developing a range of equipment-based and teaching assistant supports. Our biggest achievement, even with the immense challenges we have faced, has been to retain a sense of collegiality and collaboration, underpinned by an ethic of care, within the College. The fruits of this are captured and demonstrated in our recent College publication *Technology Enhanced Learning in the College of Social Sciences and Law: Digitally transforming educational practice*.

Dr Sarah Morton of UCD School of Social Policy, Social Work and Social Justice was the joint recipient of the Central European University 2020 European Award for Excellence in Teaching in the Social Sciences and Humanities.

## College structure

**Dr Christopher Cowley**  
Associate Dean of Social Sciences

**Dr Aideen Quilty**  
Associate Dean for Widening Participation

**Professor Aisling Reynolds-Feighan**  
Vice-Principal for Research, Innovation and Impact

**Dr Niamh Moore Cherry**  
Vice-Principal for Teaching and Learning

**Dr Richard Collins**  
Vice-Principal for Global Engagement

**Professor Judith Harford**  
Vice-Principal for Equality, Diversity and Inclusion

**Dr Nuala Brady**  
Vice-Principal for Graduate Studies

### UCD College of Social Sciences and Law consists of 11 Schools:

**Professor Graeme Warren**  
Head of School, UCD School of Archaeology

**Professor Ronald Davies**  
Head of School, UCD School of Economics

**Associate Professor William Kinsella**  
Head of School, UCD School of Education

**Professor Jacky Croke**  
Head of School, UCD School of Geography

**Professor Eugenia Siapera**  
Head of School, UCD School of Information and Communication Studies



UCD SPIRE and the UCD Centre for Sustainable Development Studies, in collaboration with UCD Earth Institute, organised a seminar to discuss Goal 16 of the UN Sustainable Development Goals: Peace, Justice and Strong Institutions. Pictured are David Donoghue, former permanent Representative of Ireland to the UN, Prof Colin Scott, Dr Dawn Walsh, SPIRE and Dr Sinéad Walsh, the UCD 2019 Alumni Awardee for Social Sciences.

During 2019/20 academic year the Vice-Principal for Graduate Studies, Dr Nuala Brady supported a wide range of new programmes, noted on the previous page and implemented extensive changes to manage programme operations in the face of the pandemic, including for example, holding viva voce examinations for PhD candidates remotely.

### Research and Impact

This was the fifth straight year of expansion in academic staffing with 234 in March 2020, up from 185 in 2016. There were 403 PhD students and 27 Research masters students enrolled in the College. This steady increase in faculty numbers is expected to sustain the upward trajectory for research activity in the College. In terms of research outputs there was an increase in the number of SciVal Research outputs, with an average Field Weighted Citation Impact of 1.33. Within the College, 94.85% of the faculty are deemed to be research active. The academic year of 2019/20 saw sustained performance in terms of research funding awards with €8.77 million in externally funded awards and €2.9 million in internally funded awards. The number of proposals was up significantly from the previous year with 324 in 2019/20 compared to 219 in 2018/19. The College enjoys a balanced portfolio of grant awards from European (29%) and Irish funding agencies (IRC = 24%). The major awards during the year included three IRC Employment-based Postgraduate Programme awards, two IRC Enterprise Partnership Scheme awards, eight IRC Government of Ireland Postdoctoral Fellowships, thirteen

# €8.77m

in externally funded awards in the 2019/20 academic year

IRC Government of Ireland Postgraduate Scholarships and ten New Foundation awards. Two major European Research Council grants were awarded, to Dr Amy Strecker (Law) for 'Land, Property in and Spatial Justice in International Law' (Starting Grant – PROPERTY (IN)JUSTICE) and to Professor Eoin Carolan (Law) for 'The Foundations of Institutional Authority: A Multi-Dimensional Model of the Separation of Powers (Consolidator Grant – FIAT). Professor Maria Baghramian (Philosophy) led the successful grant application to EU Horizon for the major €3 million project 'Policy, Expertise, and Trust in Action (PERiTIA)'.

### Equality, Diversity and Inclusion

The College continues to deepen its commitment to Equality, Diversity and Inclusion (EDI) under the leadership of Professor Judith Harford, VP for EDI, and has increased its number of Athena SWAN awards, expanded the professional development of staff and faculty in areas such as unconscious bias and dignity and respect training and hosted a number of seminars and workshops on EDI issues for students and faculty. UCD School of Economics, under the leadership of Professor Ron Davies, was awarded the Athena Swan Bronze Award, demonstrating

## College structure

**Professor Imelda Maher**  
Head of School and Dean of Law,  
UCD Sutherland School of Law

**Professor Brian O'Connor**  
Head of School, UCD School  
of Philosophy

**Professor David Farrell**  
Head of School, UCD School  
of Politics and International  
Relations

**Professor Suzanne Guerin**  
Head of School, UCD School  
of Psychology

**Professor Jim Campbell**  
Head of School, UCD School  
of Social Policy, Social Work  
and Social Justice

**Dr Iarfhlaith Watson**  
Head of School, UCD School  
of Sociology

As at 1 September 2019

an understanding of the challenges to gender equality in the School with a commitment to implement an effective gender equality action plan.

Dr Aideen Quilty was appointed as the College's first Associate Dean for Widening Participation. Aideen worked with the College to build on its strong track record including implementing a range of innovative campus and community-based programmes specifically designed to widen and deepen participation across key target groups including mature students, students from socio-economically disadvantaged areas and QQI-FET progression students. The BSc Social Sciences and the BSoc Sc Social Policy and Sociology undergraduate degrees have a Widening Participation representation of 39.15% while the Law programme is at an impressive 42.3%. At graduate level, two Widening Participation scholarships have been awarded for 2019/20 in the School of Psychology (MSc Mindfulness-Based Interventions) and School of Social Policy, Social Work and Social Justice (Professional Masters in Social Work).

### Community and Engagement

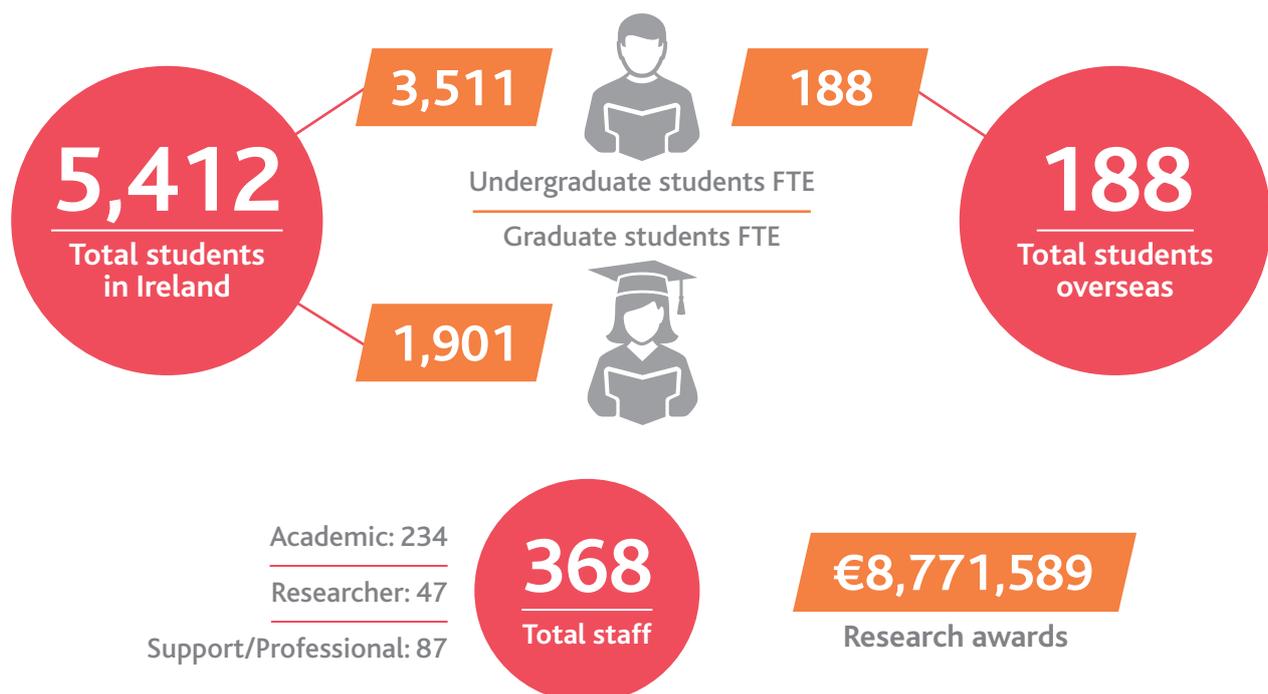
Many of our alumni and faculty participated in the UCD Alumni 'In Conversation' panel discussions that were broadcast during 2020. Many of the themes had a focus on Social



Pictured at a shared learning day celebrating the role of women in STEM are (l-r): Asst Prof Aoibhinn Ní Shuilleabháin; Prof Keith Murphy, UCD School of Biomolecular and Biomedical Science; Margie McCarthy, SFI; Rachel Farrell; Mrs Sabina Higgins; Prof Judith Harford; Prof Colin Scott; Marelle Rice, UCD School of Education; Karen Maye, UCD School of Education; and Asst Prof Sharon Shannon, UCD School of Physics.

Sciences such as COVID-19: Youth Mental Health and Wellbeing in a Crisis – a Practical Discussion, The Philosophy of Mental Well-being, The Climate Emergency and COVID-19, So What's next: Becoming Anti-Racist? and the Transformative Power of Community Engaged Learning.

**Professor Colin Scott**  
College Principal and Dean of Social Sciences





# UNIVERSITY AWARDS

## UCD Alumni Award Winners 2019

The UCD Alumni Awards proudly celebrate the outstanding achievements of UCD alumni who are exceptional role models and whose lives and careers inspire us all.



**Dr Barbara Dawson, BA 1979**

### 2019 UCD Alumni Award in Arts and Humanities

An astute observer of the international contemporary art scene and an outstanding curator, the first female director of Dublin's Hugh Lane Gallery, Dr Barbara Dawson has been one of the most significant figures in the Irish art world in recent decades.



**Shaun T Kelly, BComm 1980, DipPrAcc 1981**

### UCD Alumni Award in Business

The Belfast native was the global Chief Operating Officer for KPMG International, and retired in September 2019. During his time with KPMG, he ran the US tax practice and through his leadership KPMG served a long list of blue-chip American corporations.



**Noelle Walsh, BE 1985**

**UCD Alumni Award in Engineering and Architecture**

A senior figure at Microsoft, Noelle Walsh leads Cloud Operations and Innovations, a role that includes supply planning and strategic acquisition as well as global construction and data centre operations. Previously, she spent 25 years with the Dow Chemical Company, where she worked across multiple businesses.



**Professor Mary Horgan, MB Bch BAO 1986, MD 1995**

**UCD Alumni Award in Health and Agricultural Sciences**

A world-renowned expert in infectious disease, Professor Mary Horgan is the President of the Royal College of Physicians of Ireland – the first female in this role since its establishment in 1654. She is a consultant in infectious diseases at Cork University Hospital.



**Colin Ryan, BCL 1997, DBS (IT) 1998**

**UCD Alumni Award in Law**

Colin Ryan, one of Goldman Sachs' top investment bankers in its technology, media and telecom group in San Francisco, joined the investment bank giant after his graduation from UCD. He is based in the San Francisco Bay Area and is Co-Head of Mergers and Acquisitions: Americas.



**Dr John Bell, BA 1986, MA 1988**

**UCD Alumni Award in Research, Innovation and Impact**

John Bell is the 'Healthy Planet' Director of DG Research and Innovation at the European Commission in Brussels. Since his appointment in 2014 John has been the leader in the development of the potential of the bioeconomy.



**Caroline Keeling, BSc 1990, MSc(Agr) 1992**

#### **UCD Alumni Award in Science**

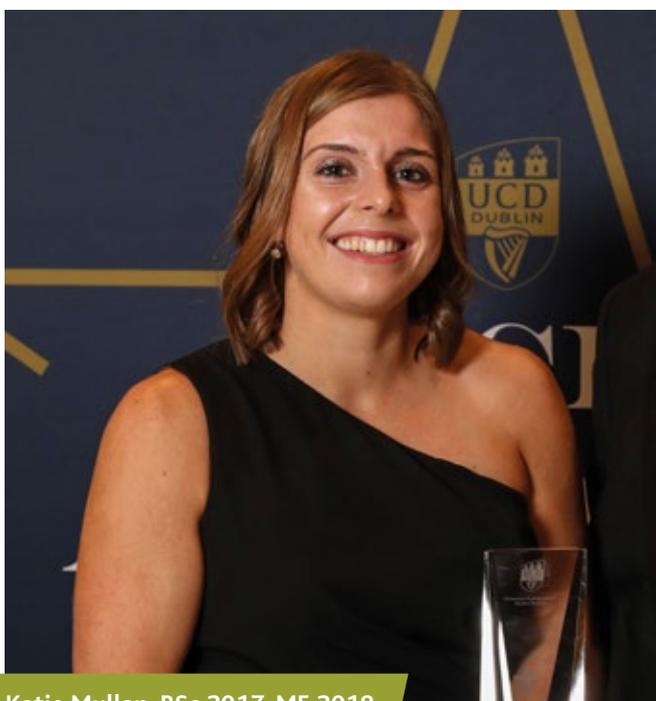
Caroline Keeling is CEO of Keeling's, Ireland's largest fruit and vegetable distributor, dating back to the 1920s. Since becoming CEO of the 100% Irish-owned Keeling's in 2013, Caroline has increased the company's turnover by 50% and extended the brand to include five divisions, with operations in the UK, Europe and Asia.



**Dr Sinéad Walsh, MSc 2005**

#### **UCD Alumni Award in Social Sciences**

Dr Sinéad Walsh is the EU Ambassador to South Sudan. She has worked for Ireland's Department of Foreign Affairs and Trade since 2009. Prior to this, Sinéad served as the Ambassador of Ireland to Sierra Leone and Liberia and the Head of Irish Aid in the two countries, based in Freetown from 2011 to 2016.



**Katie Mullan, BSc 2017, ME 2018**

#### **UCD Alumni Award in Sport**

Katie Mullan is the captain of the Irish hockey team and led her country to sporting history in August 2018. Captaining the first ever Ireland team in any sport to reach a World Cup Final, Katie, who is from Co Derry, helped UCD Hockey Club win several trophies.

## Honorary Degrees



**Philip R Berber**

### Honorary Degree of Doctor of Laws

Philip Berber was recognised for his philanthropy. He is an Irish-born, Texas-based technology entrepreneur, now engaged in philanthropy, international aid, social entrepreneurship and impact investing. Following a successful career, the sale of CyBerCorp allowed him to develop his plans for a new model of philanthropy and international aid.

He and his wife Donna built a family foundation called A Glimmer of Hope. Focused on Ethiopia, it provides humanitarian aid and microcredit initiatives. Since 2001, it has funded

more than 3,000 projects and positively impacted the lives of more than 1.5 million people in the areas of water and sanitation, education, healthcare, enterprise and agriculture.

The citation was delivered by Associate Professor Maeve Houlihan, Director of UCD Lochlann Quinn School of Business.



**Catherine Corless**

### Honorary Degree of Doctor of Literature

Catherine Corless was recognised for her unstinting work in exposing the practices of the Tuam Mother and Baby Home run by the Bon Secours order of nuns. She did a night course in local history and learned how to do research, how to follow a story, and, crucially, how to approach the unwanted parts of history. Thanks to her commitment, we now know more about what happened to those children, their stories, their names and their values.

The citation was delivered by Dr Emilie Pine, UCD School of English, Drama and Film.



**Brother Tony Dolan**

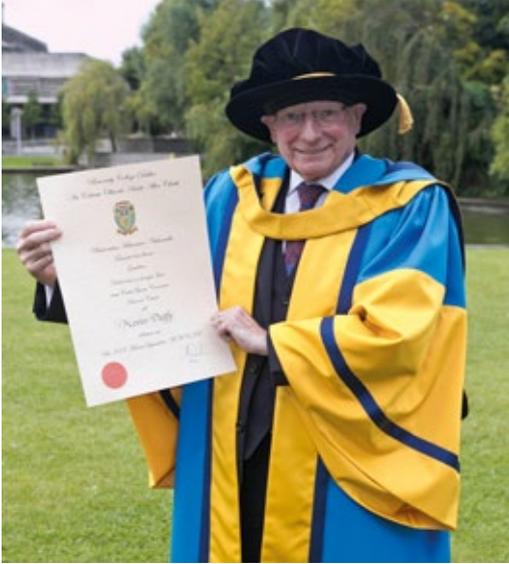
### Honorary Degree of Doctor of Science

Brother Tony Dolan was recognised for his work on sustainable agriculture and in particular in agricultural education. He was Principal of Mountbellew Agricultural College 1973-1989 and then worked in Kenya and Uganda, where he is very well known and highly respected for his work.

He set about bringing a new and vibrant meaning to the role of agriculture as the basis for social and economic well-being and to attract young people into agricultural training. He was 20 years ahead of his time

with the promotion and teaching of practical and grounded actions for sustainable agriculture in Kenya and Uganda.

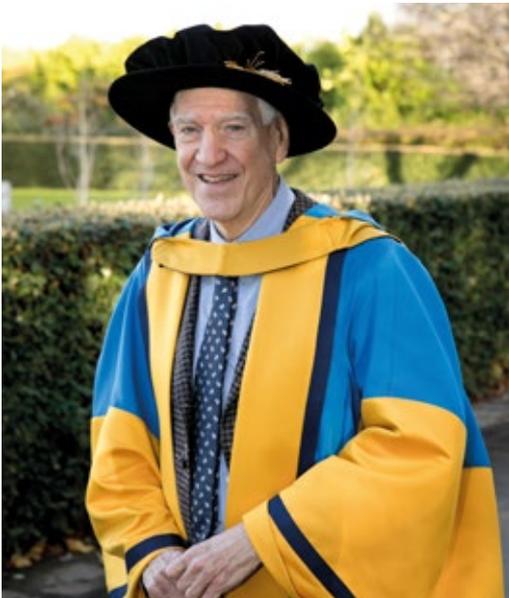
The citation was delivered by Professor James Kinsella, UCD School of Agriculture and Food Science.

**Kevin Duffy****Honorary Degree of Doctor of Laws**

Kevin Duffy was recognised for his contribution to the trades union movement in Ireland across his career. His talent was quickly recognised and, in 1988, Kevin was appointed Assistant General Secretary of the Irish Congress of Trade Unions. In 1997, he was appointed Deputy Chair of the Labour Court and subsequently as Chairman. Kevin applied to the Honorable Society of King's Inns to become a barrister and was called to the Bar in 2003. For someone who had no formal education since the age of fifteen, this was an incredible achievement. He eventually

retired from the Court in 2016 but did not retire from public service. He was chosen by the Government to chair both the Commission examining Water Charges and the Public Service Pay Commission.

The citation was delivered by Associate Professor Anthony Kerr, UCD Sutherland School of Law.

**Joseph M Hassett****Honorary Degree of Doctor of Literature**

Joseph Hassett was recognised for his outstanding work as scholar, literary critic and champion of Irish writing who has fostered public initiatives that have safeguarded Irish culture, introduced new audiences and readers to Irish literature, and enabled artists to flourish.

Following a long and distinguished legal career, he embarked on his second career, receiving an MA and a PhD in English, specialising in the work of WB Yeats. His doctoral work led in turn to the publication of three books on the subject.

His generosity to his alma mater has taken many forms, including his sponsorship of a MA scholarship in Irish literature named for Professor Gus Martin. He also donated a highly significant collection of Irish poetry from the 20th and 21st centuries to UCD Library Special Collections. These include a number of Yeats's first editions and also correspondence, works of literary criticism and a rich range of contemporary Irish poetry.

The citation was delivered by Professor Margaret Kelleher, UCD School of English, Drama and Film.

**Professor Brian Havel****Honorary Degree of Doctor of Laws**

Professor Brian Havel was recognised for his scholarship on aviation law, marking him out as a leading and authoritative voice in the field.

He is director of the world-renowned Institute of Air and Space Law at McGill University, Montreal. He is the first Irish person to hold the position in an Institute that is synonymous with academic excellence with an extraordinary reach and influence. He has held visiting positions and taught at the University of Oxford, Leiden University and Northwestern, as well as having held positions with

key international bodies including the World Economic Forum and the International Air Transport Association (IATA).

His career has tracked and helped to shape a revolution in aviation from a protected national industry to open skies. His work is theoretically informed, addressing law and governance in aviation across the three legal domains of international law, the EU and the US.

The citation was delivered by Professor Imelda Maher, Dean of Law, UCD Sutherland School of Law.



### Catherine Marshall

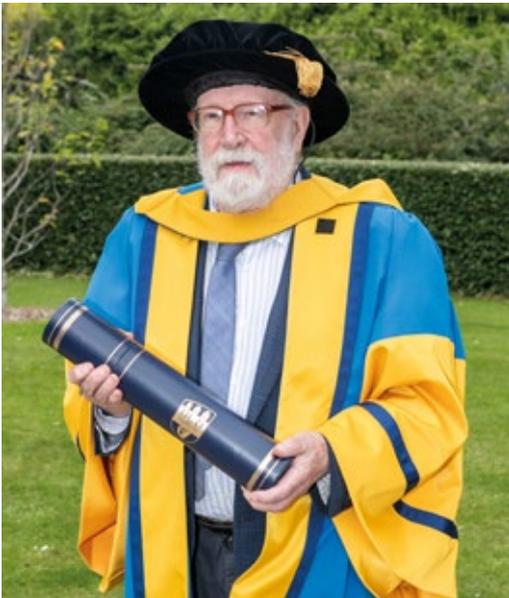
#### Honorary Degree of Doctor of Fine Arts

Catherine Marshall was recognised for her distinguished career as a leading historian of 20th and 21st century Irish art. In 1995 she became the founding Head of Collections at the newly established Irish Museum of Modern Art. Throughout her career she has written insightfully about the Irish art of the past and championed the best of the present.

In recognition of the importance of bringing outstanding art to communities across Ireland, she was seconded in 2007 to the Arts

Council as an advisor. She has served as a board member not only of the Douglas Hyde and Butler Galleries, but also of Common Ground, a Dublin organisation committed to the role of the arts and culture in urban regeneration.

The citation was delivered by Professor Kathleen James-Chakraborty, UCD School of Art History and Cultural Policy.



### Pádraig Ó Snodaigh

#### Honorary Degree of Doctor of Celtic Studies

Pádraig Ó Snodaigh was recognised for his services to the Irish language. Poetry has lived through many transformations. By the start of the Irish Revival it was still a vibrant force in oral tradition and revivalists understood that a new literature had to be created that would derive authentically from its own past and yet be nourished by the modern world.

Pádraig Ó Snodaigh understood that call and became the beating heart of the development of Irish poetry since the mid-twentieth century. With his company Coiscéim he inspired

and encouraged poets, published them, publicised them and built their confidence. He has published about thirteen hundred books. Not all are of poetry but a huge number are, including the work of our best and most heart-stopping poets.

The citation was delivered by Professor Máire Ní Annracháin, UCD School of Irish, Celtic Studies and Folklore.



### Professor Thomas Sterner

#### Honorary Degree of Doctor of Science

Professor Thomas Sterner was recognised for his global contribution to climate and environmental policy.

He is Professor of Environmental Economics at the University of Gothenburg Sweden and an expert in the design of environmental policy instruments for climate and environmental policy. In addition to his academic achievements, his Environmental Economics Unit at the University of Gothenburg is recognised for remarkable achievements in the creation of environmental economic capacity to aid development across five continents.

He has applied the findings of his research to the economics of energy, industry, transportation, chemicals, fisheries and soil management. He has also made important contributions on the choice of instruments when polluters are so powerful or have such a superior grip on information and other resources, that they tend to be successful in resisting taxation and regulation. He has applied this research in both developed and developing country contexts.

The citation was delivered by Professor Peter Clinch, UCD School of Architecture, Planning and Environmental Policy.


**Sheila M Willis**
**Honorary Degree of Doctor of Science**

Sheila Willis was recognised for her contribution to forensic science.

After joining the fledgling forensic science laboratory, Sheila's career progressed rapidly and she constantly sought to improve the necessary facilities and expertise and was appointed as laboratory director.

She proceeded to recruit a good spread of expertise, assembled a multidisciplinary team and acquired a comprehensive range of state-of-the-art equipment. She was at the forefront of developments in forensic science over many years.

When the association of Forensic Science Providers became the voice of forensic science in the UK and Ireland, Sheila was appointed to the chair where she continued to drive quality issues. She has also served on a number international bodies regulating and establishing analytical standards in forensic science.

The citation was delivered by Associate Professor Matthew Harmey, UCD School of Biology and Environmental Science.



# APPOINTMENTS AND PROMOTIONS



## Appointments

### Full Professor

**Professor Kath Browne**  
School of Geography

**Professor Joanna Bruck**  
School of Archaeology

**Professor Eoin Casey**  
School of Chemical and  
Bioprocess Engineering

**Professor Helen Heneghan**  
School of Medicine and St Vincent's  
University Hospital

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

### Professor

**Professor Paula Bourke**  
School of Biosystems and  
Food Engineering

**Professor Aisling Swaine**  
School of Social Policy, Social Work  
and Social Justice

## Promotions

### Full Professor

**Professor Denis Dowling**  
School of Mechanical and Materials  
Engineering

**Professor John Murphy**  
School of Computer Science

**Professor Torres Sweeney**  
School of Veterinary Medicine

**Professor Emma Teeling**  
School of Biology and Environmental  
Science

**Professor Wenxin Wang**  
School of Medicine

### Professor

**Professor Catherine Blake**  
School of Public Health, Physiotherapy  
and Sports Science

**Professor Thomas Boland**  
School of Agricultural and Food Science

**Professor Dermot Brougham**  
School of Chemistry

**Professor Deirdre Campion**  
School of Veterinary Medicine

### Professor Anne Drummond

School of Public Health, Physiotherapy  
and Sports Science

### Professor Aoife Gowen

School of Biosystems and Food Engineering

### Professor Suzanne Guerin

School of Psychology

### Professor Lisa Katz

School of Veterinary Medicine

### Professor Patricia Maguire

School of Biomolecular and Biomedical  
Science

### Professor Eleni Mangina

School of Computer Science

### Professor Louise McHugh

School of Psychology

### Professor Lynda Mulvin

School of Art History and Cultural Policy

### Professor Áine Ní Dhubháin

School of Agriculture and Food Science

### Professor Emilie Pine

School of English, Drama and Film

### Professor Paul Rouse

School of History

# RETIREMENTS



## UCD Academic Affairs

### UCD Chaplaincy

#### Leon Ó Giolláin SJ

Leon Ó Giolláin SJ joined the UCD community in September 2005, providing a professional, confidential and compassionate listening ear to all. As Head Chaplain and throughout his 15 years of service, Leon truly embedded himself into our student support network. He sought daily to help students of all faiths and beliefs, enabling them to achieve their goal of developing a proficient holistic education throughout their University experience.

Leon is to be commended for his collaboration with student activities, charity events, cultural projects and his work on various student welfare committees outside his day-to-day spiritual and pastoral work. His support, guidance and heartfelt advice to faculty, staff and students of all faiths and none often went beyond the call of duty. He was generous with his time, making himself available outside working hours, on weekends, and during holiday periods. Leon helped break down barriers and overcome suspicion between different faiths on campus through interfaith gatherings which helped foster mutual respect and understanding between those from diverse backgrounds.

In many ways, he led through his actions. From joyous events under his leadership such as weekly interfaith assemblies; remembrance gatherings; table fellowship discussions; retreats; weekly campus-

wide student roadshows; Ash Wednesday service with Archbishop Diarmuid Martin, to his management of misfortune, notably the Berkeley tragedy which plunged our community into sorrow. His investment in the lives of others has truly made a difference; he gave of his time unreservedly and in return gave hope and encouragement to so many.

### UCD Library

#### Julia Barrett

Julia Barrett, Head of Research Services retired in May 2020 after an illustrious career in UCD. She served as Architecture Librarian at Richview Library; she established *ArchInfo*, an information service for architects, in the late 1980s; and she collaborated with Queen's University, Belfast in setting up the PADDI database in 2002. She was also the first head of the Library's Research Services unit, established in 2020, leading the development of its programmes and staff and creating a model for such services nationally.

### UCD Quality

#### Dr Roy Ferguson

In March we were sorry to say goodbye to our colleague Roy Ferguson who retired from UCD after 13 years. Roy had a long career in higher education having worked for over 20 years in the sector in Northern Ireland. As UCD Director of Quality, he was responsible for developing, implementing and promoting quality across the University to ensure its adherence with legislative requirements and strategic priorities. Roy also contributed to the

development of quality within the Irish HE sector through his participation in the Irish Education Quality Network, the Irish Universities Association Quality Group, engagement with QQI and membership of quality review teams both nationally and internationally. He played a significant role in guiding UCD through preparation for its recent institutional review. Roy's dedication and expertise were constant, and he was always approachable and available to provide guidance to colleagues. He will be missed, and his colleagues wish him a very happy retirement.

### UCD Registry – Student Recruitment

#### Kathy Murphy

Student Recruitment bade farewell to their colleague, Kathy Murphy in January 2020. Kathy had been an integral part of UCD for 34 years and played a pivotal role in organising and managing a broad range of recruitment events, including the annual UCD Open Day event in O'Reilly Hall. Her hard work, commitment and dedication was inspirational to all who worked closely with her and she will be greatly missed. Her colleagues wish her a long and happy retirement.

### UCD College of Arts and Humanities

#### UCD School of Art History and Cultural Policy

##### Associate Professor Nicola Figgis

Associate Professor Nicola Figgis retired in September 2019, following many years as part of the UCD School of Art History and Cultural Policy (including as Head of School), and an outstanding career as one of the Ireland's leading scholars of eighteenth century art. She obtained a BA degree in History of Art in Trinity College Dublin, and her PhD from the National University.

Amongst her many publications are *A Dictionary of British and Irish Travellers in Italy 1701-1800* (Yale University Press, 1997) and the co-authored *Irish Paintings in the National Gallery of Ireland Vol. I* (NGI, 2001). From 2002 to 2004 she edited *Irish Architectural and Decorative Studies: the Journal of the Irish Georgian Society* and currently serves on the Editorial Board of the Irish Georgian Society. She is principal author and editor of *Art and Architecture of Ireland: Painting 1600-1900, Volume 2*, Royal Irish Academy and Yale University Press, Dublin, New Haven and London (October 2014).

For their monumental achievement in initiating the *Art and Architecture of Ireland* project, in May 2015 Dr Figgis was jointly awarded (with Professor Paula Murphy) the Royal Hibernian Academy's gold medal. Her impact on Irish art history as an educator and scholar has been indelible, and her leadership at UCD invaluable.

#### UCD School of Languages, Cultures and Linguistics

##### Associate Professor Rosario Hernández

Associate Professor Rosario (Charo) Hernández started her long and distinguished career at UCD in 1986 in the UCD Department of Spanish and the ALC as a Spanish-language tutor. She became an Assistant Lecturer in the Spanish Department in 1992 before graduating with her PhD in 2010 and rising to the position of Associate Professor in 2014.

Charo's main interests are in the areas of second-language acquisition and second-language teaching and learning, with a

focus on the development, delivery, assessment and coordination of undergraduate and postgraduate Spanish modules, including Spanish for business. This led to a longstanding and close relationship with the UCD Business School who, alongside her other UCD colleagues and students past and present, have fond memories of Charo, her passion for her subject, her energy and rigorous attention to detail and quality in all of her scholarly endeavours.

Charo's innovative pedagogical approaches to Teaching and Learning and curriculum design and her commitment to the MA in Applied Linguistics really stand out. Her expertise is highly sought after in peer-reviewed journals, external examining, and among postgraduate students. Charo continues her relationship with UCD as an adjunct professor, a research active retired staff member and a PhD supervisor.

### UCD College of Engineering and Architecture

#### UCD School of Chemical and Bioprocess Engineering

##### Patricia Connolly

After acquiring a Higher Diploma in Applied Chemistry and 18 months working in an anodizing plant, Pat left her hometown of Ballybay in Co Monaghan and joined the School of Chemical Engineering as a technician in April 1980. While working in the mid 80s she received both an honours degree in mathematics and later a diploma in statistics from UCD.

For many years she worked alongside and supported both Dr Frank Mc Loughlin and Dr Dermot Malone. She has been an engaged and invaluable member of the technical support staff and besides teaching labs, she made many contributions such as assisting Dr Patricia Kieran in the setting up and implementation of Problem Based Learning (PCL). She also acquired several workshop skills which enhanced her contribution.

Pat was also an active member of the staff UCD squash club and loved windsurfing, hillwalking and completed two Dublin City marathons. She has fond memories of the fun and craic of playing bridge, darts and just general mayhem that went on with fellow workers during the lunch hours in the Merrion Street days.

Engaged in every aspect of the School's activities and always willing to help, Pat will be sorely missed. Along with being hands-on designing and building her own house in Ballybay, she has an ongoing active interest in gardening and landscaping and beekeeping. She will be returning to enjoy her interests and her home in Ballybay and her extremely large and extended family of whom she is so proud and dearly loves.

Her colleagues at the School thank Pat for her many wonderful years of service and wish her all the very best in the years ahead.

##### Pat O'Halloran

After acquiring a Higher Ed Diploma in Applied Biology, Pat joined the School of Chemical Engineering as a technician in 1982. Over the years he has steadfastly supported not only our second and third year graduate teaching labs but also fourth year projects and postgraduates in their research.

Pat has never been a man to stand still. Always looking to expand his skills along with a keen interest in computers, he studied at night and acquired a diploma in electronics.

Besides his ongoing interest in computers and electronics, over many years and largely self-taught, Pat's love of workshop skills saw him acquire increasing proficiency in welding, brazing, CNC machining plus CAD and CAM design work. These wide-ranging skills were brought to bear, not only in mentoring students and lending invaluable support to staff and postgraduate projects, but in the repair and upkeep of vital laboratory teaching and research equipment.

Pat was always active both within and outside work. He embraced the joys of hillwalking, potholing and kayaking along the way and is still enjoying these activities right up to this day. Along with his latest passion of beekeeping these pursuits, along with his naturally seeking mind, will no doubt provide him with great enjoyment in the years ahead. With grateful thanks for his many years of service to the School, his colleagues wish both Pat, his wife Joan and two children all the very best for the future.

## UCD College of Health and Agricultural Sciences

### UCD School of Agriculture and Food Science

#### Anne Killion

Anne Killion started work as a laboratory technician in the Agricultural Chemistry and Soil Science Department in January 1980 in Belfield, working through to Senior Technical Officer level in the School. She worked on research projects and teaching in soil science, specialising in soil analysis. Always capable and prepared for laboratory work, the many academics and students who worked with Anne, especially Dr Jim Collins, benefited from her quiet attention to every detail. Anne was always very focussed on helping students to have good standards in analytical methods, working actively in preparation and delivery of large soil science practical classes, as well as individually helping postgraduate students and undergraduate students get started in analysis. Many currently active researchers cut their laboratory teeth under Anne's careful supervision!

As a colleague among the wider student and staff community at UCD, Anne will be fondly remembered for being personally supportive, thoughtful, and inclusive of all those who worked with her and she has left a lasting legacy of excellence in soil analysis.

#### Patrick Reilly

When Paddy Reilly retired from his position as Senior Technical Officer at UCD, after 46 years, he did so with a record of distinguished service to agricultural education and research in Ireland. Paddy began his UCD career in 1974 in the Faculty of Agriculture at Lyons Estate, where he worked with Professor Ian Gordon and Professor Maurice Boland in animal physiology. In 1979, he relocated to Belfield where he was one of the original members of the Animal Nutrition laboratory in the Faculty of Agriculture. While there, he worked with the late Dr Bill O'Connell and Professor Pat Caffrey.

Paddy's area of expertise was animal nutrition and over the years he was the person to go to if you wanted to develop new laboratory

techniques. His long tenure in UCD is characterised by many outstanding achievements in the animal nutrition laboratories in both Belfield and Lyons Farm. Paddy had an enormous breadth of knowledge and expertise in laboratory skills, that he always placed at the disposal of colleagues and students. Paddy will long be remembered and thanked for the backing and support he provided to colleagues and educating many generations of undergraduates and postgraduate students. Paddy was fundamental to all their success. He gave long years of service to the School in the area of Health and Safety and always made sure that it was a safe place to work and learn. All his colleagues wish him well in his retirement.

## UCD School of Nursing, Midwifery and Health Systems

### Dr Loretta Crawley

Dr Loretta Crawley was a graduate of the School's BNS degree (UCD 1989) and was a Registered Nurse Tutor. She joined the School's nursing faculty in 2002 as a member of the teaching team when the first BSc in Nursing degree programmes were introduced. As a former orthopaedic nurse and nurse tutor at St Vincent's University Hospital, she brought a rich repertoire of clinical practice and teaching experience to the School's undergraduate programme in General Nursing and was held in very high esteem by her students. She completed a PhD at the School of Social Work, Social Policy and Social Justice where she examined the emotional significance of affective inequalities for older Irish women. She contributed to several School committees and working groups related to teaching and curriculum review and enhancement. Loretta was a valued member of the School's teaching faculty and she gave unfailing service to the School and the University.

### Mary Kemple

Mary Kemple joined the School, then a department of the School of Medicine, in 1998 and gave 21 years' loyal service to UCD. A graduate of BNS degree in 1993, she was a Registered Nurse Tutor and was among the first cadre of nurses to enter the University as academics when the nursing in Ireland was preparing to transition from an apprenticeship model of preparatory training to a four-year honours degree. At the time, the School was beginning to develop its offerings in postgraduate clinical training and Mary was a key member of faculty that developed School policy in the areas of pedagogy and curriculum and she also contributed to the wider strategic development of the School. Throughout her time as a member of the School's nursing faculty, Mary acted in a variety of roles, mainly in the area of the School's postgraduate programmes, and she was a member of several academic governance and strategic committees. Her research interests were in the field of chronic illness, and she was Programme Director of the School's MSc in Chronic Illness.

### Dr Gabrielle O'Kelly

Dr Gabrielle O'Kelly joined UCD in 2006, having completed a PhD at Queen's University Belfast, where she was a HRB Clinical Research Fellow. A graduate of the School's BNS degree, she was a Registered Nurse Tutor, and also held an MSc in Psychotherapy (UCD), an MPhil in Psychoanalytic Studies (TCD), and an Advanced Certificate in Group Analytic Psychotherapy (Institute of Group Analysis, London). A trained Psychoanalytic Psychotherapist, she was a member of the Association for Psychoanalytic Psychotherapists of Ireland. Gabrielle was the former Principal Tutor at St Michael's Hospital.

As a member of the School's nursing faculty, Gabrielle acted in a variety of roles, mainly in the School's preparatory registration BSc programmes and the Higher Diploma in Mental Health Nursing. As the Associate Dean for Undergraduate Studies and a member of the School Management Team, she held a significant leadership role in the School, and was a key contributor to School policy and its wider strategic development.

### UCD School of Veterinary Medicine

#### Associate Professor Lynne Hughes

This year we said a virtual farewell to the leader and longest serving member of our veterinary anaesthesia team, Associate Professor Lynne Hughes. Lynne graduated as a veterinary surgeon from Trinity College Dublin in 1979, and after several years working in general practice, she subsequently joined UCD in 1995. After obtaining multiple postgraduate specialty qualifications, she set about transforming both the academic and clinical teaching components of her specialist subject in the UCD School of Veterinary Medicine. Throughout her career, she was elected to several key scientific and scholarly roles wholly commensurate with her international reputation. Lynne's meticulous attention to detail allowed her students to understand and apply the key principles of anaesthesia/analgesia to a wide variety of both domestic and exotic species. The teaching, whilst demanding, was designed to inspire creative thought and a healthy degree of fun. An anonymous letter received by the School from a new graduate highlighted the praise received from their new employer for their anaesthesia skills, despite having only left college two weeks previously. Lynne's Zoom send-off was attended by folks worldwide; the praise, warmth and affection that flowed, particularly from the residents she trained, was plain for all the world to see!

#### Ann Kane

Ann Kane was the first theatre nurse ever employed by the UCD School of Veterinary Medicine when she transferred from the human healthcare system in 1980. Ann played a lead role in organising theatre schedules and practices to ensure the highest standards were adhered to at all times. She used the knowledge gained from the human healthcare system to transform and upgrade SOPs, equipment and theatre flow to maximise efficiency. She always appreciated the fundamental importance of infection control in this pivotal role and was instrumental in working with Associate Professor Nola Leonard to ensure standards and targets were continually met.

In addition, Ann obtained postgraduate qualifications in Occupational Health that proved invaluable in assisting in queries forwarded to the UCD SIRC office. Ann's dedication to the welfare of all surgical patients, as well as her kindness and thoughtfulness to students on rotation, were clearly ranked as two of her most valued contributions to the School. The allocation to Ann of the pseudonym 'Matron' by all the junior veterinary and nursing staff fundamentally underlined the respect and esteem she enjoyed in her 40 years of service to UCD.

### UCD College of Social Sciences and Law

#### UCD School of Geography

#### Associate Professor Joe Brady

Associate Professor Joe Brady has retired from UCD and UCD School of Geography after more than 30 years of service. Joe is an exceptional teacher who brought his interest in maps, spatial analysis and Dublin City to generations of students.



As a researcher, he has produced an immense body of work on the modern development of Dublin that is part of the *Making of Dublin City* book series, which he edits. Joe also played a major role in the development of Irish geography by serving as editor of *Irish Geography* and President of the Geographical Society of Ireland.

His commitment to UCD (or the 'National', as he called it) was complete and there are few areas of the University and of academic life that he has not influenced. Joe acted as Head of School, Dean, Chair of the Academic Staff Association, member of the Governing Authority and Chair of the Common Room. On a wider scale, Joe was a leader in the Irish Federation of University Teachers and played a central role in the definition of academic freedom that is enshrined in the 1997 University Act, which is seen internationally as a model for other university systems.

His colleagues in the UCD School of Geography wish Joe well in his continued research on our city and thank him for his immense service.

### UCD School of Psychology

#### Dr Tina Hickey

Dr Tina Hickey joined the UCD School of Psychology in 2004 from Institiúid Teangeolaíochta Éireann, lecturing and researching topics in bilingualism, language development and the psychology of language. She supervised students at undergraduate, masters and doctoral level. Tina was a very popular lecturer, with students responding to the way in which the modules were directly informed by her own research interests and activity.

Tina was a very supportive supervisor and very committed to supporting her students to develop their skills as researchers. Tina

also made a significant contribution to the School through roles such as Undergraduate Project Coordinator and Exam Coordinator, introducing procedures to support staff and students in key areas of the undergraduate curriculum. She made a significant contribution to the profile and reputation of the School, College and University through her research, which was nationally and internationally recognised.

From 2013-2015 Tina was Scientist-in-Charge of a Marie Curie research grant held with Professor Nancy Stenson. She has served as President of the Reading Association of Ireland and the Irish Association for Applied Linguistics (IRAAL), and former Treasurer of the International Association for the Study of Child Language (IASCL). She acted as consultant for bodies such as the European Commission, Mudiad Ysgolion Meithrin, as well as both the Welsh and Irish governments.

### UCD School of Sociology

#### Veronica Barker

Veronica retired from UCD in September 2019 following a 19-year career culminating in School Manager of the School of Sociology. She spent a brief period working in the Registrar's Office in 1990 before exploring other life pursuits and countries. She became a staff member of UCD in March 2000, firstly in Personnel as it was then called, and subsequently the Exams Office.

In September 2001, Veronica joined the Department of Mathematical Physics, originally in the Faculty of Arts, but later in Science (following a merger with Maths and Stats). She remained there until she became School Manager in Sociology in June 2008. Although travel plans and cooking holidays are shelved for the moment, due to the COVID-19 pandemic, Veronica has continued to enjoy hill walking in Dublin and Wicklow and spending time with her family. To mark her retirement, her colleagues at UCD were delighted to contribute to her wish to own a piece of work by the artist Mary Farl Power. Despite the limited availability of such pieces – as the artist passed away at a young age – Veronica managed to track down a piece which now proudly hangs in her home and serves as a memento of UCD and her colleagues.

### UCD College of Science

#### UCD School of Computer Science

##### Ian Bonar

Ian Bonar began his UCD career in 2012 at the School of Education. In 2013, he moved to the School of Computer Science to develop the UCD Online Website. Later that year, he took on the role of Programme Manager for the Forensic Computing and Cybercrime Investigations (FCCI) programmes. During his time as FCCI programme manager, Ian played an integral role in the growth of the programme, which has more than 300 students per year. His dedication to supporting the students ensured their successful completion of the programme while maintaining full-time employment as Law Enforcement Officers.

Prior to joining UCD, Ian worked in industry for over 40 years, firstly as a Communications Engineer for Ericsson in both Ireland and Algeria and then as a Senior Commissioning Engineer for Siemens. He graduated with a BSc in Computing Science from Griffith College in 2004.



Ian spent every morning enjoying breakfast in his favourite UCD spot - the UCD Club - and he looks forward to returning there again once COVID is behind us. His deep interest in travel, motorbikes, all things aeronautical and his grandchild will ensure he is kept very busy during retirement. His quick wit and sharp sense of humour will be missed by all his friends and colleagues in UCD.

### UCD School of Mathematics and Statistics

#### Emeritus Associate Professor Russell Higgs

Russell studied Pure Mathematics at the University of Liverpool and did his doctoral work at the Universities of Liverpool and Notre Dame. He joined the Department of Mathematics at UCD in 1985 and was appointed Senior Lecturer (Associate Professor) in 2002 in the School of Mathematics and Statistics. Within the School Russell taught modules on a number of topics including Actuarial Mathematics and Algebra – both introductory and advanced modules. In 2003 he was awarded the President's Teaching Award. Russell was Head of the Mathematics subject within the School from 2015-2018.

Russell's research interests include representation theory, wireless sensor networks, coding theory, computer algebra and quantum groups. He was a member of the UCD Claude Shannon Institute for Discrete Mathematics, Coding, Cryptography and Information Security.

Outside UCD he was actively involved with the Irish Mathematics Society and was President of the society in 2005 after previous terms as secretary and vice-president. Russell was also actively involved with the UCD branch of the Irish Federation of University Teachers (IFUT) including serving as president of the branch. Russell's retirement brings to an end a long and dedicated career in UCD. His colleagues in the School of Mathematics and Statistics warmly wish him a long and happy retirement.

### UCD School of Biomolecular and Biomedical Science

#### Professor Michael Scott

Professor Mike Scott obtained his primary degree in Molecular Biology from Edinburgh University and his PhD in Biochemistry from the University of London. Following postdoctoral research in the University of California, Mike spent 8 years (1985-1993) in the same institution as an Assistant Research Neurogeneticist in the laboratory of Nobel Laureate, Dr Stanley Prusiner.

Mike contributed greatly to early research on proteinaceous infectious particles (Prions) that cause bovine spongiform encephalopathy (mad cow disease) and Creutzfeldt-Jacob disease, and his work was specifically referred to in Dr Prusiner's Nobel acceptance speech (1997). Mike remained in the University of California for an additional 10 years, as Adjunct Professor and transgenic support group director.

In 2003, Mike moved to Ireland as an ETS Walton Visiting fellow at the UCD Conway Institute, after which he became Professor in the UCD School of Biomolecular and Biomedical Science (2005). He continued his research on Prions, extending the research to neurological disorders such as Alzheimer's disease. Mike has published many research papers and secured major research funding, including an SFI Investigator Award (2009). Mike made major contributions to the School, in particular the BSc

Neuroscience and Biochemistry degree programs and served as Head of Subject of from 2016-2019.

## UCD Research, Innovation and Impact

### UCD Conway Institute

#### Michael O'Sullivan

On his retirement from UCD Conway Institute as Executive and Operations Director, Michael closed the chapter on a career spanning 45 years of supporting science in Ireland. Michael joined UCD in April 2000 from Maynooth University to play a pivotal role in progressing the design of the Institute.

This was a transformative project; the biggest public-private investment in research that Ireland had seen and a fundamentally new approach to conducting research in a shared environment supported by leading infrastructure and technologies.

Michael managed the procurement, delivery and installation of equipment and services housed in the Institute as well as the relocation of operations and personnel from three separate sites to this new 11,500sqm building. He was instrumental in shaping the Institute through his unique combination of vision, experience, attention to detail, thorough planning and operational excellence. This was always underpinned by a great sense of calm, good judgement, interpersonal skills and professionalism.

His contribution to UCD and the wider Irish science environs has been immense as judged by those who thrived within the research and educational environment that he helped create and supported over twenty years. Michael is highly regarded externally for being extremely generous with his advice and wise counsel to others across the sector as they planned similar developments. He was Chair of the University Bioscience Managers Association (2016-2019), an organisation for laboratory managers in university biological, biochemical and life science departments from more than 70 universities across the UK and Ireland.

### UCD Estate Services

#### UCD Main Restaurant

##### Michael Reilly

Michael Reilly joined UCD at the tender age of 15. He is first position was assisting in the preparation of fresh vegetables. As part of his development, Michael undertook a part-time course and qualified as a chef from Cathal Brugha Street. He worked both in the main kitchen and on the hot counters in the main restaurant in the Gerard Manley Hopkins building.

Michael had a great sense of humour and was very popular with colleagues and customers. After 49 years of service Michael is looking to spending more time with his twin sister who resides in Berlin and having more time to continue his passion for gardening.

#### Copi-Print

##### Kathleen Berrigan

Kathleen Berrigan retired earlier this year after 20 years of service with UCD. As the manager of the Copi-Print Bureau in the John Henry Newman Building Kathleen was tirelessly enthusiastic in her dealings with both staff and students and integral to the delivery

of Copi-Print's services across the campus. Her colleagues wish Kathleen all the best in her retirement.

## UCD Finance

### Payroll

#### Anne Roche

Anne Roche joined the Finance Office in September 2000 working in the Payments Section before switching to the Payroll Office in 2012 where she was promoted to a new role, Payroll Processing Supervisor, with responsibility for the vital task of ensuring the monthly and weekly payrolls were processed on time. Anne was an extremely conscientious and hardworking employee and carried out all her roles in the Finance Office with great attention to detail and accuracy. In both the Payments and Payroll Offices, she trained and mentored new members of staff, always paying close attention to their development and progress. Her accumulated experience and knowledge of the PAYE and PRSI codes ensured she was a key member of the Payroll team and a source of authority and calm in a very busy work environment.







**University College Dublin**

Belfield, Dublin 4, Ireland

 [www.ucd.ie](http://www.ucd.ie)