



# Supporter Impact Report

2021/22



Iontaobhas Oideachasúil  
Educational Trust



**“DCU is proud to be one of the world’s leading young universities, with a mission to transform lives and societies. Through education, research and innovation, we are focused on delivering real impact, and addressing global challenges in collaboration with our partners and stakeholders.**

**I would like to most sincerely thank DCU’s supporters for enabling the transformative impact showcased in this report. I hope you enjoy reading about how the seeds of your philanthropic investment have grown into incredible impact for our students, and for society.”**

Professor Daire Keogh, President, Dublin City University



# Contents

02	Introduction
03	Our Year in Numbers
04	Research for Society
10	Future Skills and Innovation
16	Excellence and Opportunity
24	Student Experience and Facilities







## A Word from our Chair

At DCU Educational Trust, we believe a better, fairer and more sustainable world is truly possible.

In 2021/22, we were proud to continue to build philanthropic partnerships that enable DCU's mission to transform lives and societies, and which help to realise this vision of a better world and future for all.

Thanks to the generosity of DCU's alumni, friends, corporations, trusts and foundations, this year we raised €2.9 million in funding for transformative scholarships that open up a world of opportunity for our students, and enable them to excel. This year, we were also able to support research to tackle some of society's greatest challenges, through funding for initiatives like the DCU Centre for Climate and Society and the appointment of the Naughton Family Chair in STEM Education, the first in Ireland to focus on STEM education at early years and primary level.

I would like to thank our supporters for their generosity in 2021/22, which has enabled the impressive impact highlighted in this report. Thank you for working with us to harness the transformative power of higher education.

**Eamonn Quinn,**  
Chair, DCU Educational Trust



## A Word from our CEO

Last year was a record-breaking one for DCU Educational Trust, with our supporters pledging over €6.4 million for projects to transform lives and societies. As a number, this is impressive, but what is truly remarkable is the impact that this exceptional level of commitment by our supporters enables.

The projects and initiatives highlighted in this report represent the fruits of our core values of collaboration and commitment to impact – demonstrating the powerful results of working together to achieve transformative societal impact through philanthropy.

Translating the philanthropic commitments of our supporters into impact also requires the highest standards of governance. Last year, we were proud to achieve the Charities Institute of Ireland Triple Locked status, the gold standard for best practice in accountancy and transparency.

In recent months, we also introduced four new philanthropic focus areas, to help us describe our key areas of need, and of supporter impact. The stories in this report are told through the lens of these new themes: Research for Society, Future Skills and Innovation, Excellence and Opportunity and Student Experience and Facilities. We hope that you enjoy reading about them, and the collective impact of DCU's supporters in 2021/22.

**Joe Quinsey,**  
CEO, DCU Educational Trust

# Transforming Lives and Societies Together...

In 2021/22, our supporters pledged over €6.4 million to enable projects that will transform lives and societies and help to achieve the United Nations Sustainable Development Goals.



**€2.9m**

to support Excellence  
and Opportunity



**€2.5m**

to support  
Research for Society



**€602,000**

to support Future Skills  
and Innovation



**€436,000**

to support Student  
Experience and Facilities

To see our individual supporter online donor roll, please visit:  
[dcuedtrust.ie/our-individual-supporters](https://dcuedtrust.ie/our-individual-supporters)

To see our organisational supporter online donor roll, please visit:  
[dcuedtrust.ie/our-supporters/corporate-supporters](https://dcuedtrust.ie/our-supporters/corporate-supporters)

For further information on our governance, please visit:  
[dcuedtrust.ie/about-us/governance](https://dcuedtrust.ie/about-us/governance)

# Research for Society





# 65,973

primary and post-primary students benefitted from research-based FUSE Anti-Bullying and Online Safety Programme

# 1st

academic research centre devoted to leading societal responses to the climate crisis - DCU Centre for Climate and Society



# 60



peer-reviewed publications by AI for Better Living Research Group

# 155

members of research centres supported through philanthropy

# 1st

Chair to focus on STEM education in primary and early years settings – Naughton Family Chair in STEM Education



# Breakthrough Solutions for a Better World...

**At DCU, our research is born out of new thinking and an innate drive to find solutions for a better world.**

**Our ability to conduct research that positively transforms lives and societies is greatly enhanced through our philanthropic partnerships.**

**Together with our supporters, we are harnessing DCU's unique areas of expertise to address society's greatest challenges. We lead the way in bringing fresh thinking to the complex issues we face today, from advancing early years STEM education and bringing a humanities and social science perspective to the challenge of climate change, to devising engineering solutions to provide clean water for all.**

Some highlights from our Research for Society Fund in 2021/22 included:

**AIB Chair in Data Analytics:** Since his appointment as AIB Chair in Data Analytics at DCU in 2018, Professor Tomas Ward has assembled the AI for Better Living Research Group, which conducts cutting-edge research to understand human decision making in the real world through ethical AI innovations. Thanks to AIB's support over the last five years, the group has produced 60 peer-reviewed research papers that explore issues such as how living with chronic pain affects decision-making, or why patients do not adhere to medication schedules. In 2021/22, new studies commenced by the group included monitoring long Covid patients in the UK in association with the NHS and a consortium of UK universities, and a study to understand how anxiety and stress impact on tinnitus symptoms.

## **FUSE Anti-Bullying and Online Safety**

**Programme:** Philanthropic support enabled DCU's Anti-Bullying Centre to deliver its research-based FUSE Anti-Bullying and Online Safety Programme to primary and post-primary schools across Ireland in 2021/22. With 22% of 13 to 14 years olds reporting that they have experienced some form of bullying, either online or offline in the last year, FUSE is a vital intervention that equips the full school community (teachers, students and parents) to work together to tackle bullying and promote online safety. Last year, with support from Rethink Ireland, the programme reached 8,842 students in 84 primary schools across Ireland. Thanks to support from Meta, the programme also worked with 57,131 students in 360 post-primary schools nationally.





Pictured: Speakers  
at National Centre  
for Family Business  
Conference in 2021

**National Centre for Family Business:** Since its foundation in 2013, philanthropy has enabled DCU's National Centre for Family Business to develop a reputation as a leading international family business research centre. With support from AIB in 2021/22, the Centre continued to conduct world-class research and translate it into best practice insights that enable family firms to succeed and grow into the future. The Centre reached the landmark figure of 50 publications on family business matters in 2022, with 35 of those in top-ranking peer reviewed journals. The Centre also continued to engage with Irish family business practitioners through newsletters to a network of 1,548 subscribers, podcasts, the Family Business Continuity executive education programme and the Centre's annual conference. This year's conference on 'Compassionate Leadership Driving Successful Family Business' attracted over 2,000 YouTube views, with highlights including a keynote address by Stephen Bowcott, CEO of fifth generation family firm SISK.

**Desmond Chair in Early Childhood Education:** The Desmond Chair in Early Childhood Education, Professor Mathias Urban and colleagues in DCU's Early Childhood Research Centre (ECRC) continued their work to influence and inform national and international research, policy and practice on the future of early childhood care and education in 2021/22. The European Union's Directorate General for Justice appointed Professor Urban to advise on the revision of the Barcelona targets for the provision of early childhood education and care for its new European Care Strategy. The ECRC also secured EU Erasmus Mundus Design Measures funding to develop a new international masters programme on 'Integrated Childhood Systems and Policies,' which will enrol its first students in 2024/25.

**Prometric Chair in Assessment:** Under the leadership of Prometric Chair in Assessment, Professor Michael O'Leary, the team at the DCU Centre for Assessment, Research, Policy and Professional Practice in Education (CARPE) delivered an impressive body of research in 2021/22 to enhance the practice of assessment at all levels of the education system, from early childhood through to fourth level. The team's internationally recognised publications included nine peer-reviewed papers, one book chapter, 20 conference papers and seven white papers on topics ranging from gamification in assessment to remote proctoring of exams for professional certification. Professor O'Leary also provided advice to the Joint Oireachtas Committee on Education, Further and Higher Education, Research, Innovation and Science on the topic of Senior Cycle Reform in November 2021.

**DCU Water Institute:** In 2021/22, DCU Water Institute's philanthropic partners enabled its ongoing work to tackle national and global water challenges through research and capacity building. Funding from Rethink Ireland enabled the commencement of the Centennial project, which has engaged 50 citizen scientist volunteers to examine water quality on the River Nore. Support from the Quinn Family Foundation also enabled the continuation of a partnership with GOAL Water Share looking at the operation of sustainable rural water facilities (water pumps) in Uganda and a spatial analysis of sewage management in Freetown, Sierra Leone.

# Focus on: Naughton Chair

**“With the support of the Naughton family, DCU has been able to place Ireland as a leader in this increasingly important field of research and policy.”**

Professor Anne Looney, Executive Dean, DCU Institute of Education



Giving children a sense of the messiness of the world, and showing them how to solve problems with STEM-related reasoning is key to giving young students the best early start with STEM, according to Professor Hamsa Venkat, an expert in mathematics education who took up the newly created Naughton Family Chair in STEM Education at DCU in 2022.

Professor Venkat made the remarks at her inaugural lecture in the Seamus Heaney Theatre on DCU's St Patrick's Campus in May 2022. Her role is the first in Ireland to focus on STEM (Science, Technology, Engineering,

and Mathematics) education at primary level and in early childhood education, and is based at DCU's Institute of Education, Ireland's only University Faculty of Education.

As part of her new role, Professor Venkat will work with colleagues in the DCU Centre for the Advancement of STEM Teaching and Learning (CASTeL), DCU Institute of Education, DCU Faculty of Science and Health and DCU Faculty of Engineering and Computing to build up the competence and confidence of primary and early-years teachers and their students across STEM subjects.

**“The Naughton family has been supporting initiatives in STEM education for more than a decade, and we are very happy to support the dedication to STEM education shown in DCU – the research and planning carried out here on campus will ensure that the excitement of science and technology will be carried into our classrooms and will inspire the next generation of STEM leaders for Ireland and beyond.”**

Martin Naughton

# Focus on: Centre for Climate and Society



**“The creation of the DCU Centre for Climate and Society is a recognition that Climate Change is no longer a problem for the physical sciences alone. It is a policy problem, it is a communications problem, it is a media problem, an ethics problem, an education problem, a corporate problem. In fact, it is a challenge that every area of society will have to respond to.”**

Professor Daire Keogh, President,  
Dublin City University



In March 2022, Deloitte was announced as the founding partner of DCU's Centre for Climate and Society. The Centre is Ireland's first academic research centre devoted to leading societal responses to the climate crisis. As part of a three-year partnership agreement, Deloitte's support will enable the Centre to explore how different social arenas such as politics, media, education and policy can influence climate action.

The Centre's research, innovation and engagement activities will bring perspectives and analysis from the social sciences and humanities to bear on the climate crisis, exploring how the change needed to tackle the climate crisis can be:

- facilitated and enabled through communication and media;
- strengthened through policy and governance frameworks; and
- driven through responses in our education system and in business

The Centre hosted its inaugural conference on the topic of 'Climate Action: Ireland's Role in a Changing World' in May 2022, with President of Ireland, Michael D. Higgins giving a keynote address to 300 attendees at the event on DCU's St Patrick's Campus.

Attendees also enjoyed panel discussions exploring how the media can respond to the climate challenge; climate policy-making in a turbulent world; and what corporate climate leadership looks like.

With support from Deloitte, the Centre also hired its first post-doctoral researcher, Dr Brenda McNally, whose current research examines the climate change counter-movement in Ireland and the use of digital tools to engage communities with climate actions.



Pictured (L-R): Laura Wadding, Partner - Risk Advisory and Sustainability Lead and Harry Goddard, CEO, Deloitte Ireland, pictured with Dr David Robbins, Director, DCU Centre for Climate and Society and Prof Daire Keogh, President, DCU



# Future Skills and Innovation





# 5,665

Changemaker students

# 19

Changemaker  
Schools across Ireland



# 4



Teachers Inspire  
Desmond Award  
winners

# 275

Step up in STEM  
workshop participants

# 169

students participated in  
FLOURISH module





# Next Generation Ability and Ideas...

**At DCU, we are excited by the future. We are always looking ahead, ready to evolve and innovate to change lives and impact our world for the better.**

**As we move with the world and prepare our students for it, our philanthropic partners play a vital role in fostering innovation and creativity.**

**Within the gates of our university, we invest in student innovation, creativity and entrepreneurship, but our influence extends far beyond this too. Through initiatives like the Changemaker Schools Network at DCU Institute of Education, we are ensuring that the student teachers of today and schools across Ireland are ready to prepare children with the skills they will need for tomorrow.**



Pictured: Teachers Inspire curator, Louise O'Neill



Some highlights from our Future Skills and Innovation Fund in 2021/22 included:

**DCU Changemaker Schools Network:** This network is based on the simple but powerful idea that all children can be Changemakers, with the skills and confidence to lead change in their home, school, community and beyond. With philanthropic support from Rethink Ireland and a group of individual donors, the network expanded to work with 19 member schools in 2021/22. Last year, it supported members to equip more than 5,600 students with the essential skills of empathy, creativity, leadership and teamwork so they are ready to thrive in the modern world and to address the many complex challenges facing humanity.

**Teachers Inspire:** Teachers play a vital role in preparing future generations with the skills and attributes they will need to succeed. Teachers Inspire is an Ireland-wide initiative, supported by leading businessman and philanthropist Dermot Desmond, that seeks to celebrate our teachers and to recognise the transformative role they play in our lives and in our communities. Teachers Inspire 2021 was curated by acclaimed author Louise O'Neill, with the campaign gathering inspirational stories of teachers who have made a difference from across the country. The four winners of the Teachers Inspire Desmond Awards for 2021 were Claire Duffy, Una Smith, Donna Fitzgerald and Liz Kett.

**Western Seaboard Science Project (WSSP):**

With support from the Irish American Partnership, DCU's WSSP programme works to enhance the teaching and learning of primary science by making the benefits of Continuing Professional Development (CPD) more widely available to primary school STEM educators working in small rural schools in Ireland. In 2021/22, local Programme Coordinators continued to work in partnership with three regional Education Centres in Clare, Kerry and Wexford to share innovative teaching methodologies to enhance the learning of science.

**Step up in STEM:** DCU's exciting new Step up in STEM programme, established with support from JPMorgan Chase, began to deliver outreach activities to inspire a love of STEM subjects and an interest in STEM careers in 2022. Working with Transition Year students in disadvantaged schools connected to DCU's Access Programme, DCU STEM experts delivered 12 workshops to 275 students covering topics such as biology, physics, engineering, technology and maths. 52 students also took part in two coding camps, where they were introduced to the programming language, Python, and worked on problems from first year undergraduate computing classes at DCU, with prizes awarded for the best programmers.



Pictured: Step up in STEM workshop participants

# Focus on: FLOURISH



Pictured (L-R): Prof Daire Keogh, President, DCU, Ronan Smyth, Joanne Savage, EMEA Marketing Director, Fitbit, Angelina Foley and Prof Alan Smeaton at the launch of the FLOURISH report

Improved sleep, nutrition and understanding of their personal health and fitness data were among the positive outcomes reported by the first students to participate in DCU's innovative FLOURISH module launched in 2021/22.

Led by Professor Alan Smeaton from the Insight SFI Research Centre for Data Analytics, the FLOURISH module was offered to second year students initially, with the aim of helping them better understand their own personal health and fitness data and how it can provide insight and guidance to improve their overall health.

The programme delivers practical tips to students for everyday wellness and also aids in improving students' digital literacy, specifically the awareness of personal health and fitness data and its potential for developing healthier habits.

Students were given a Fitbit Versa 3 to support them throughout this health and wellness journey, providing the guidance and insights to reach their goals. Students used their Fitbits to see how changes they made to their own lifestyles, exercise, sleep and diet were reflected in their own personal data and how even small changes impacted their overall wellness.

**"It is really gratifying to see the impact that the FLOURISH module has had on our students and how they now see how their own personal data can be a force for good when it is used properly."**

Prof Alan Smeaton, DCU



**169** students registered for the course

**86.7%** said taking the module improved their overall wellness

**70.5%** said it improved aspects of their sleep

**70.5%** said it improved aspects of their nutrition

**93.4%** said it changed their understanding of their personal data so that they can now make informed decisions about their overall wellness

**98%** would recommend FLOURISH

### Students who took the module spoke about its benefits and what they learned...

"I thought that FLOURISH was a nice break from the usual assignments we get through college. It allowed me to stop and think."

"From engaging in this section of FLOURISH I have learned a lot about sleep and how it is affected by the things we do throughout the day."

"The (FLOURISH assignment) has given me a new perspective on the balance between my studies and life."

"This exercise was extremely interesting as I had no idea about data usage and storage before the topic."



# Excellence and Opportunity







# 1,144

Access students enrolled at DCU

# 7

University of  
Sanctuary scholarships



# 23

memorial scholarships

# 11

endowed scholarships

# 5

PhD candidates supported



# An Open Door for Bright Minds...

**At DCU, we believe that our student population should be truly reflective of our diverse society, and our doors are open to all. We're here to transform, to get students to where they want to be and to help them become something beyond expectation.**

**Thanks to our supporters, we continued to lead the way in widening participation in higher education in Ireland last year, and in enabling our talented students to excel and make their mark.**

Some highlights from our Excellence and Opportunity Fund in 2021/22 included:

**Access scholarships:** Our supporters helped to provide essential scholarships to all 1,144 Access students enrolled at DCU in 2021/22. This financial support, which helps students from low-income backgrounds to cope with additional college expenses, is part of a comprehensive package of personal, financial and academic supports that enable our Access students to thrive in their studies. In over 30 years running Ireland's first and largest university Access programme, we have learned that these supports truly enable students to excel, with 98% of Access students graduating with a higher honours degree in 2021.

**Access outreach:** With support from State Street, JPMorgan Chase and yahoo!, DCU's Access Outreach Programme continued to raise student aspirations and to promote third level education as a real possibility for students living in disadvantaged north Dublin communities. Working with 24 partner schools, activities delivered ranged from sports events and tours to introduce younger students to campus, to STEM and multimedia programmes with Transition Year students and the UFirst programme to ensure fifth and sixth year students are college-ready and not just college-aware.





**Access to the Workplace:** Our award-winning Access to the Workplace programme provided professional summer internships for 86 Access students from socio-economically disadvantaged backgrounds in 2022. Leading Irish companies, who also make a donation to support Access scholarships, hosted the internships. By enhancing student CVs and networks, the programme helps to level a playing field where students from disadvantaged areas earn less than their peers from more affluent areas after graduation. In 2022, we also launched a new pilot to extend the programme's benefits to other student groups, with seven neurodiverse students taking part for the first time. The programme has now provided 245 internships since 2019, and achieved international recognition in 2022 when it won the prestigious international Times Higher Education Best Widening Participation or Outreach Initiative Award.

**University of Sanctuary:** Thanks to the generosity of Aircastle, Ornua and Siemens, four undergraduate students and three postgraduate students received University of Sanctuary scholarships in 2021/22. Since becoming Ireland's first University of Sanctuary in 2016, DCU has now provided scholarships to 42 refugees and international protection applicants that enable them to pursue their dream of higher education in Ireland. The scholarships sit alongside a programme of outreach and engagement activities to foster a sense of welcome and inclusion in the university community.

**Bachelor of Education – Irish Sign Language Pathway scholarships:** With support from Folens Publishers and Reach Deaf Services, four Deaf students are completing the Bachelor of Education – Irish Sign Language (ISL) pathway, which will enable them to become Ireland's first Deaf primary teachers using ISL. In 2021/22, the students completed the third year of their degree programme.

**Memorial and endowed scholarships:** In 2021/22, we were pleased to award 34 scholarships named after some of the university's most cherished past staff, students, friends and leading supporters. These scholarships are awarded based on the wishes of our donors, which range from providing opportunities for young people from disadvantaged communities to recognising academic and sporting excellence. Last year saw the creation of two new memorial scholarships in memory of Maureen O'Farrell and Joseph Anthony Lynch.

**Doctoral research:** Many supporters are passionate about enabling talented students to pursue doctoral research that makes an impact for society. In 2021/22, we supported five PhD candidates to pursue research in fields ranging from law and biotechnology to autism education thanks to the Orla Benson Memorial Scholarship, Paul and Margaret Kerley Autism Education Scholarships, Paddy Moriarty Memorial Scholarship and the Pierse Endowed Scholarship Fund.

# Jamie's Story

Jamie was one of 1,144 students supported by DCU's Access Programme in the 2021/22 academic year. A third year Applied Physics student, Jamie describes how the Access Programme enabled him to pursue his dream of third level education.



"Growing up in Ballymun, university wasn't something my family really discussed. My parents left school at an early age and none of my older siblings went to third level education.

I always had a passion for science, and I knew if I wanted to work in the field, I would need to go to university. My parents supported my dream, but they didn't know much about how to apply. DCU's Access Programme came into my school to tell us about the supports we could receive, and this was a game changer. Between my own research and the help of the Access Programme I saw a path to university.

Unfortunately, I just missed the points for Applied Physics at DCU, but my mam encouraged me to persevere and I completed a Post Leaving Certificate (PLC) course in Science as an entry route into DCU.

Getting into university was a very proud moment, and the Access Programme has supported me throughout my journey. In first year, they provided me with tutorials when I was struggling, and this was the support I needed to succeed. As well as this, the financial support that I receive from Access has meant that I can fully concentrate on my studies.

I have been given many opportunities at DCU, like securing an internship in the Physics

department in second year. This gave me the experience and connections I needed to secure my INTRA placement, which I am currently completing in the same department. It has been fantastic to get so much research experience while still completing my degree.

Earlier this year, I received an email about an internship with the University of Kansas this summer. I knew that it was highly competitive, but I decided to apply. I completed an interview for the internship and on the same day, they offered me a place, I was over the moon!

The support of the Access Programme has been vital in my success at university. It enabled me to discover my passion for research, and to realise that I love coming up against obstacles and problem solving. No two days in the lab are ever the same, and eventually, you hope to discover something that nobody knew before. After my degree, my ambition is to continue on to do a PhD."

**"Access has helped me to aim high, and I am so grateful for the opportunities and experiences that I just never would have had without the programme."**

## Georgia's Story

Georgia Grogan is a second year History and Law student at DCU. Below, she discusses the challenges she overcame to attend university and how the Access Programme has supported her.



"I grew up as the eldest of six in a single parent household. Due to addiction issues in my family, I moved around a lot, from Dublin to live with my grandparents in Louth at age 11 and later to Swords to live with my aunt when I was 17. Despite the challenges of moving schools and home, I was determined to set a better path for myself and saw education as the catalyst to do so. Then, in January of my final year in school, I discovered I was pregnant. I immediately thought that my dream of attending university was over but I pushed through the last few months of school and finished my Leaving Certificate.

After this, I moved to a service that supports pregnant women at risk of becoming homeless. My daughter was born with cerebral palsy, and I found it very difficult to find a place to live that would cater for her needs. We eventually found accommodation and I was linked with a support worker from the Simon Community, who helped to reignite my dream of attending college.

I was delighted to be accepted through the Higher Education Access Route (HEAR)

scheme on a reduced points offer. The DCU Access Service was incredibly helpful and provided me with a laptop and orientation.

**"It still surprises me that I have so much support and people who really want me to succeed."**

For this, I am very grateful. I wanted to give back and when I heard about the opportunity to do so through the DCU Access Outreach Programme, I became an Access Ambassador.

With the right supports, I reached my goals and I want to share this possibility with others. It's really rewarding for me to encourage secondary school students to pursue their dreams. I have recently moved to a more accessible house with my daughter and I am really enjoying my course. I see myself going into teaching or politics in the future and I hope to get a great work placement with the DCU Access to the Workplace programme next year. The support Access has shown me has helped me learn to grab every opportunity and I am really thankful for all their help."



# Ciara Furlong: Finding New Ways to Treat Illness

Ciara Furlong is a PhD candidate in DCU's School of Biotechnology. In this piece, she explains how support from the Pierse Endowed Scholarship Fund has enabled her to pursue research that is coming up with solutions to the growing resistance of bacteria to antibiotics.



"I have always had a love of science and I opted to study all three subjects for my Leaving Certificate in school – Chemistry, Physics and Biology. My sixth year Biology teacher really inspired my love of the subject and encouraged me to set a goal to pursue a career in scientific research.

I first studied General Science for my undergraduate degree, specialising in microbiology. In my final year, I researched the role of certain genes involved in antifungal resistance in *Candida albicans*, which drove my desire to conduct further studies in the field. I found it fascinating to see how bacteria can develop resistance to antibiotics and to consider the potential solutions to this major issue for society. I applied to take part in a research Master's programme working with Dr Linda Holland on a project exploring how fungi can potentially be used to treat dangerous biofilm infections instead of antibiotics. Thanks to the support of the Pierse Scholarship Fund, I was delighted to continue my research on this topic for two further years to PhD level.

My research question looks at "How do fungi affect bacterial biofilm formation?" I work with the bacterial pathogen, *Staphylococcus aureus*, which can cause illnesses ranging from minor skin infections to life-threatening sepsis. *S. aureus* can also attach to implanted medical devices such as catheters and pacemakers.

Once attached to a surface, the cells continue to grow and produce a thick protective layer, known as a biofilm. Bacteria within a biofilm are very difficult to kill but I have discovered a fungus that is secreting an unknown molecule that can stop *S. aureus* from making a biofilm. If we can stop bacteria from growing a biofilm using this fungus, then they will be easier to kill and can no longer cause serious infections.

Pursuing this doctoral research on microbiology and interspecies interaction has been a dream come true for me. Considering how bacteria and fungi work together is incredibly important to understand when it comes to treating diseases and infections.

As bacterial resistance surges against antibiotics, it is important to find a different way to treat illnesses and I believe my research can help to do that. I am happy to be carrying out this important work, which will help not only the scientific community, but will also hopefully translate to medical treatments in the future.

I am extremely grateful for the support I have received and for this scholarship. I have learned such an incredible amount here at DCU and I get to work with amazing professors. I am looking forward to my final year at DCU and I hope to continue in the field of research once I have completed my PhD."

# Yongda Li: Searching for Life on Mars

Yongda Li is searching for life signatures on Mars through his doctoral research in DCU's School of Biotechnology. He hopes that one day, his simple, low cost and effective tests will be deployed on a mission to Mars. In this piece, he describes how support from the Orla Benson Memorial Scholarship is helping to advance this research.



"Growing up in Sichuan province in China, I always had an interest in biology and a general scientific curiosity. I chose to specialise in science in high school, and set on a path to study a BEng in Bioengineering in Heilongjiang University.

As a young scholar, I wanted to continue my research abroad, and so in 2017, I arrived in Ireland to pursue a MSc in Bioprocess Engineering at DCU. It was exciting to start postgraduate study in a new country, but also challenging initially. It took a few months to get over the language barrier, but since then I have really enjoyed living in Ireland, and have experienced how friendly and welcoming people are here.

For my MSc dissertation, I studied biochemical methods to detect markers and inhibitors of life for planetary missions. Using a Martian soil simulant available from NASA, I worked on the detection of life inhibiting peroxidants. At the end of my Master's, I successfully applied for a grant from the Irish Research Council to expand this project further as doctoral research focussing on methods to identify a wider range of biomarkers including proteins, DNA, microbes and lipids. I am now in the third year of my PhD and I have successfully developed methods to quantify proteins, microbes and DNA under conditions that simulate the Martian atmosphere and the effect of UV radiation.

While my biochemical methods can detect the presence of a number of life signals, there is a lot more that I need to understand about how protein, for example, breaks down in conditions similar to those on Mars.

To gain this understanding, I need access to mass spectrometry and chromatography equipment for my experiments that is not available in DCU. Thanks to the Orla Benson Memorial Scholarship, I was able to spend a month in labs at two Greek universities this summer, where I received training in mass spectrometry, chromatographies and bioinformatics, and was able to analyse my samples. In addition, the scholarship also supported me to attend the European Astrobiology Network Association annual conference in September to present my research findings.

I am so grateful for this scholarship and the support which has allowed me to advance my research in ways that would otherwise have been impossible. Ultimately, I aspire to take this project further with a post-doctoral research fellowship that will focus on developing analytical platforms to deploy these tests on future Mars missions.

I truly believe that this research can make a significant contribution to planetary exploration in the future, as current approaches for the detection of life signatures are costly and require highly specialised, automated analytical platforms that carry a high risk of mechanical or instrument failure. My new biochemical assays will not only be cheaper and simpler, but also more sensitive, with an advantage to detect a wider range of markers of past life, precursors to life and also life-inhibiting molecules in soil samples."

# Student Experience and Facilities





# 1,000

sessions in the Colm Delves Leadership Lab

# 232

elite student  
athletes supported



# 34



active sport  
clubs at DCU

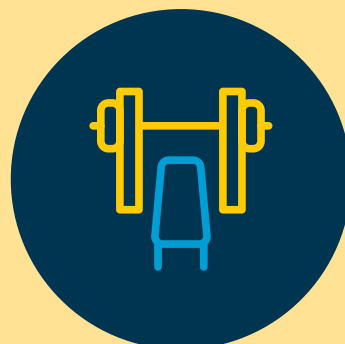
# 3



upright pianos for  
DCU Centre for Jazz  
Performance Studies

# 6,000

students engaged  
in DCU sports clubs



# Creating a Home Where Talent Thrives...

**At DCU, we challenge and champion our students to reach their full potential. Through their experiences here, we want them to thrive, discover and develop the skills they will need to shape their future and world for the better.**

**Every year, the 18,500 students who cross our threshold enjoy many world-class teaching, learning, social and sporting facilities that simply would not exist without the incredible generosity of our donors. From the John and Aileen O'Reilly Library and the McNulty Computing Building, to The Helix arts and culture venue and The U, our state of the art student centre, philanthropy has helped to build our campuses.**

**Our supporters also provide experiences that contribute to the holistic development and wellbeing of our students – whether that is supporting DCU clubs and societies, promoting student physical activity and wellbeing, or providing cutting-edge supports to enable top student athletes to excel in sport and in life.**







Ballymore announces support for men's and women's Gaelic football at DCU

Some highlights from our Student Experience and Facilities fund in 2021/22 included:

**Colm Delves Leadership Lab:** Formally launched in October 2021, the Colm Delves Leadership Lab enjoyed a busy first year in operation. The state-of-the art mixed reality leadership lab, designed to develop next generation leaders, was established with philanthropic support from Digicel to honour business leader and DCU alumnus Colm Delves. Over 1,000 sessions were held in the lab with DCU students, and with almost 200 students from local secondary schools. With pandemic restrictions now fully lifted, the lab is looking forward to welcoming students in even greater numbers for 2022/23, which began with mixed reality induction activities for all 700 incoming first year DCU Business School students.

**DCU Sports and Wellbeing:** Support from Ballymore and Decathlon in 2021/22 enabled DCU Sports and Wellbeing to pursue its goal of becoming a European leader in promoting student physical activity and wellbeing, and in supporting elite student athletes to combine the highest standards of sporting performance with holistic personal development and academic achievement. Through its Engage pillar to encourage every student to enjoy the wellbeing benefits of sport and physical activity, DCU's 34 active

sports clubs engaged over 6,000 students last year. Through its Excel pillar, 232 elite athletes from 26 counties received a package of scholarship, performance, academic and personal supports that enable them to be the best they can be, in sport and in life.

**DCU Centre for Jazz Performance Studies:**

In 2021/22, students on the BA in Jazz and Contemporary Music Performance at DCU benefitted from three new state-of-the-art upright pianos, which were purchased for the Centre's practice suites thanks to a generous donation from the family of the late Dr Tim Mahony.



Decathlon announces three-year partnership with DCU Sports and Wellbeing



# Rory O'Connor

Wexford senior hurler and DCU Business Studies graduate Rory O'Connor has just completed a MSc in Finance with DCU Business School.



## **Biggest challenges combining high performance sport and university?**

Sport has always been a huge part of my life. Even before coming to DCU, I combined playing hurling and football for my club and county at underage level with the demands of school. So I guess you could say I was somewhat prepared for the challenges of university.

But when you get to university, these challenges are multiplied by ten. The college work comes thick and fast, and unlike in school, there is nobody there to spoon-feed you. It's sink or swim and it's up to you to keep on top of it.

It's not just academically that things step up a level, at that age, your training also becomes more intense. When I started in DCU, I had also moved up to play with the Wexford senior hurlers, which in pre-season could mean travelling to Wexford for training four nights a week, plus your own gym work in between.

## **How did DCU Sports and Wellbeing help?**

I always think that balance is critical. You need to look at all the different spheres of your life – your sport, your education and your social life – and it's important not to focus too much on just one area.

That's where DCU Sports and Wellbeing comes in for me. They have always helped me to achieve that balance throughout my studies.

They really put in place everything that I needed to succeed. In first year, I was guaranteed on-campus accommodation with other sports scholarship recipients. It really helps to live with other sports people who are doing the same thing as you – you tend to feed off each other.

I had access to the high performance gym facilities and the pool in DCU and St Clare's, top class set-ups with everything you would need. That gym access has definitely been a big factor in my development over the last few years. The DCU team were also always there to give advice when training clashed with course work, or to offer access to tutors around exam time. The sports scholarship helped a lot too with keeping a car on the road to get up and down to training.

The best thing for me though was how flexible my coaches were. I was never under any pressure to get to DCU for training, they understood if I was training in Wexford. Their flexibility really made me want to give more back to the DCU teams I played with over the years.



## Mark Smyth

Sprinter and DCU Multimedia graduate Mark Smyth is the reigning Irish 200m champion and competed with the Irish 4 x 100m men's relay team at the European Championships in Munich in 2022.

### **Biggest challenges combining high performance sport and university?**

The biggest challenge for me is simply that I don't have enough hours in a day. In my course, particularly in final year, there was a lot of group work and assignments, which took a lot of time. On top of that, I train five days a week at Morton Stadium or in the gym. Each session takes about three hours from my day, with up to two hours spent on the track and then time spent commuting.

### **How did DCU Sports and Wellbeing help?**

I have always felt like the Sports and Wellbeing team have the same goals that I do, that I will perform well on the track but also academically. I don't just want to get by in my course, I want to get high grades as well. Their support has also enabled me to go to the next level as an athlete. I still work with my own coach, Kay Bannon from Raheny Shamrocks. However, my training with Kay has been enhanced through access to other supports at DCU, such as talks with a nutritionist and strength and conditioning training, which has helped me to improve both performance and injury prevention.

The financial support has also been crucial in enabling me to do warm weather training and to travel to compete in higher standard international competitions where I can run faster times to hopefully qualify for international competitions.



## Aoife O'Cuill

Distance runner and DCU Accounting and Finance graduate Aoife O'Cuill is currently completing a Masters in Accounting with DCU Business School.

### **Biggest challenges combining high performance sport and university?**

The main challenges for me have always been time and tiredness. As a student athlete, you're trying to do the same work as everyone on your course, but then you are also trying to do the same or even more training as all other athletes in Ireland too.

### **How did DCU Sports and Wellbeing help you with these challenges?**

I have progressed so much as an athlete and in my studies thanks to the support of DCU Sports and Wellbeing. Through DCU, for the first time ever, I had access to a coach who had worked with international medal-winning athletes. Having coaching at this level made a big difference to my performance, as did training together with my distance running group. I find it really motivating to train with this group, to see the results others are achieving and this inspires me that my time is coming too. Through DCU, I also have a strength and conditioning coach and access to the pool and gym, which is essential to help me stay injury free.

Paul Byrne, the Head of Athletics at DCU is also always available to give really good advice on balancing my training with my studies. I have learned that simple things like having a good routine, and planning and preparing meals can make a big difference. The sports scholarship helps too with some of my running costs like attending training camps or flying to races in Europe.



**DCU Educational Trust**

Mac Cormac Building  
Dublin City University, Glasnevin,  
Dublin 9, Ireland

E: [edtrust@dcu.ie](mailto:edtrust@dcu.ie)  
T: +353 1 700 5467  
W: [dcu.ie/trust](http://dcu.ie/trust)

 @DCUEdTrust  
 DCU Educational Trust  
 Dublin City University Educational Trust

The DCU Educational Trust is a registered charity (CHY 8960) established in 1988 to advance the development of Dublin City University.



**Iontaobhas Oideachasúil  
Educational Trust**



Best Practice in Transparency and Accountability

