



CoMH eNEWS

College of Medicine and Health, UCC



University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Issue 37 | August 2020

Navigate stories

Welcome to our latest
CoMH online newsletter

New microbiome
research of practical
value to patients

Congratulations to
Graduates of our Medical
and Summer Conferings

Infant & Dentistry
Researchers awarded
€500,000 in HRB funding

Two awards for
'Outstanding Junior
Scientist' Dr Erin Harris

MSc in Human Anatomy
open on PAC

CRF-C to play lead
role in WHO COVID-19
Solidarity Trial

Other news

CoMH eNews is intended for circulation among staff and students of the College of Medicine and Health, UCC. Extracts from CoMH eNews should not be published without the permission of the editor.



Research



Virtual Conferings



HRB Funding



Awards



Courses



Coronavirus Response





Dear Colleagues,

It strikes me how much has changed since the Spring edition of the newsletter. Ireland has moved from crisis mode in attempts to 'flatten the COVID-19 curve' and lockdown, to the government's current roadmap to reopen society and business. Our focus has also shifted in line with this roadmap to a gradual reopening. As a College, we are not just weathering the storm, we have pivoted to meet this unprecedented challenge. Working apart and online has made us reassess our ways of working, forced us to think creatively and to become more comfortable with uncertainty. I'm very mindful that we must remain cautious in our approach as any change in the COVID-19 trajectory will impact this reopening.

COVID-19 has shone a light on just how crucial partnerships are to progress health research for the benefit of all. In early June, I along with the chief academic officers of the seven Irish Hospital Groups and their respective universities co-signed a letter detailing the urgent need for a national research biobank in Ireland. The letter describes how this national resource is of vital importance for the country's capacity to test and validate any new antibody or other COVID-19 test on an Irish population, as well as to facilitate other essential healthcare research.

Our researchers continue to be extremely active in the race to understand and mitigate COVID-19. The director of CRF-C, professor Joe Eustace was nominated by the Minister of Health to be the National Chief investigator for the WHO Solidarity Clinical Trial in Ireland, with the Department of Health being the sponsor of this Trial. The School of Public Health, APC Microbiome Ireland in partnership with Teagasc, and INFANT have been successful in securing almost €700,000 in funding in 3 separate projects under the government's Rapid Response programme. Our clinical research facility in Cork (CRF-C) has been a vibrant hub of activity, supporting many COVID-19 related studies. While the Health Innovation Hub Ireland (HIHI) are supporting Irish owned businesses deliver innovative solutions to healthcare in response to COVID-19.

CoMH's resilience and adaptability during this pandemic is testament to the calibre of its people. I want to thank you for your continued hard work and commitment. I also want to thank the central university continuity teams for their continued efforts. The Research Business Continuity Team have worked tirelessly to ensure that essential CoMH research has resumed on campus, and the Campus Business Continuity Team who are working to facilitate teaching and learning in small groups. The safety of our staff and students has remained central to all our decision-making.

Outside of our COVID-19 response, our researchers and lecturers continue to show exemplary success and expertise in their fields. The news that the UCC spinout company, PrecisionBiotics Group Ltd, was acquired by the leading Danish bioinnovation company Novozymes in a €80 million deal is a tribute to the calibre of our colleagues in the APC and a great marker of the quality of research here in UCC. PrecisionBiotics Group Ltd., which has been a long-standing industry

partner of APC, discovers, develops and markets probiotics (live bacteria), which can improve gut health in animals and humans.

I'd like to congratulate Professor Chris Lynch, professor and consultant in Restorative Dentistry who is a recipient of Ireland's inaugural Teaching and learning Research Fellowships. This is one of Ireland's most prestigious national individual teaching and learning awards in higher education. Congratulations to PhD student Mark O'Sullivan winner of the Enterprise Ireland 2020 student entrepreneurship Award for his developments of a medical device for the early detection and monitoring of brain injuries in newborns. We wish Mark the very best of luck in marketing his innovative device. Congratulations to Dr Frances Shiely who received the HRB Trials Methodology Research Network SWAT award for the second year running. Professor Denis O'Mahony who was ranked the top-rated expert in inappropriate prescribing in the world and Professor Patricia Kearney who earned first place on the world Heart Federation Salim Yusef Emerging Leaders Programme. Congratulations to Professor John Cryan who was profiled in 'Science' for an article on gut bacteria, and separately, to a group of APC investigators on their findings in the first microbiome study of Irish Travellers which have global implications and are published in the prestigious journal Nature Medicine.

The College also had considerable success in securing and furthering research funding endeavours during this period. Dr Elaine McCarthy, at INFANT, and Dr Martina Hayes, a Senior Lecturer in Restorative Dentistry, have been awarded almost €500,000 in Health Research Board (HRB) funding under two postdoctoral training schemes. While, APC Investigators, Dr Susan Joyce, Dr Orla O'Sullivan and Dr Harriet Schellekens, have joined 28 other leading partners on a 5-year

€16m study 'SOPHIA' to better understand obesity and optimise future treatments.

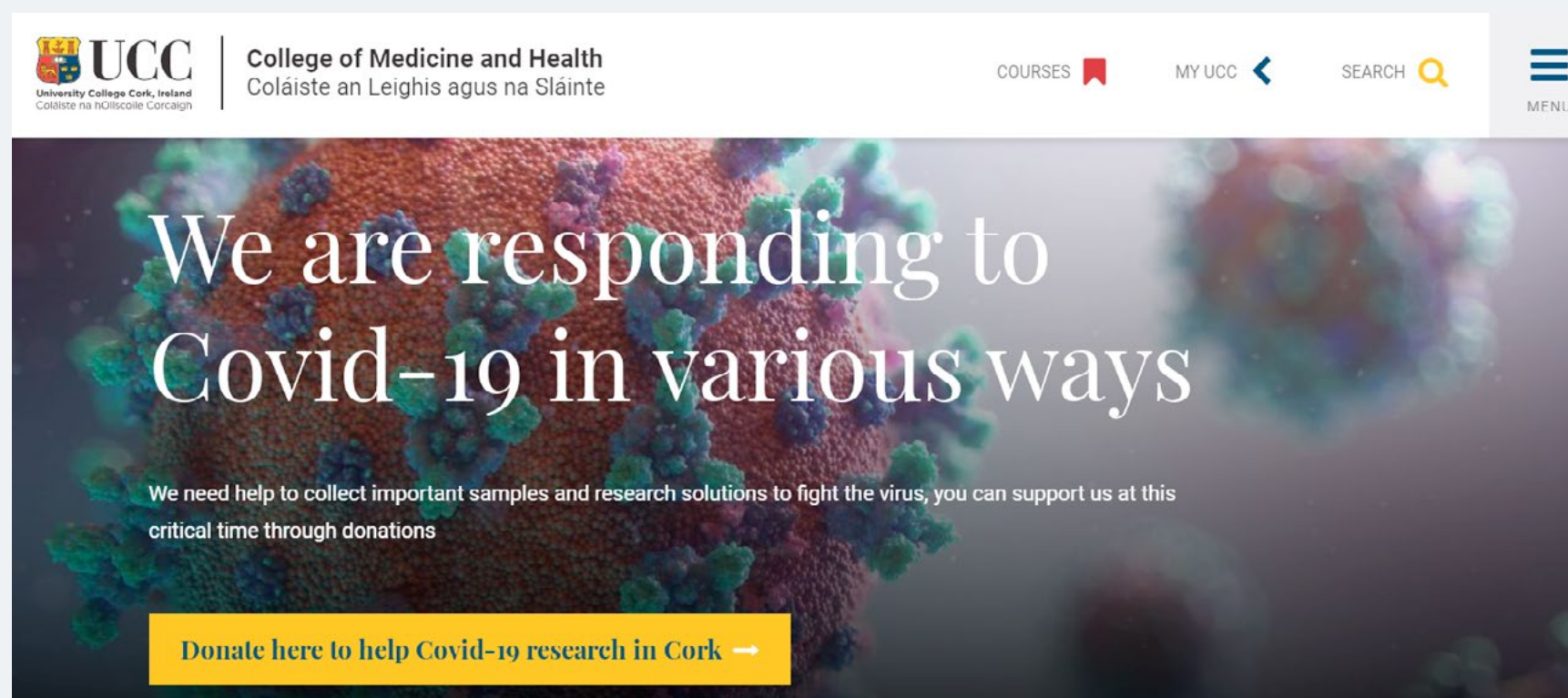
CoMH researchers were successful in 3 separate H2020 funding initiatives. APC Microbiome Ireland researchers Dr Gerard Clarke and Professor John F. Cryan, recently attracted key H2020 funding on gut health, partnering with European researchers and SME's on a grant with an overall value of €6m. Magnet4Europe awarded a €4m grant to support the international partnership of some of the world's leading universities and the school of Nursing and Midwifery at CoMH are leading the Irish arm of this study led by Prof Jonathan Drennan. Congratulations to Dr Brendan Griffin, Dr Cormac Gahan and Professor Caitriona O'Driscoll who have been successful in the evaluation stage of the Innovative Training Networks (ITNs) awarded under the H2020 Marie Sklodowska-Curie Actions programme.

I'd also like to congratulate all our students who graduated in our virtual Conferring ceremonies. The Medical conferrings on April 17 saw a total of 197 graduates conferred – the first in UCC's 175-year history to be conducted entirely online. While 180 students were conferred from across the College on 18 June as part of the virtual Summer conferrings. It is a true testament to your character and resolve to have excelled during these unprecedented times. The entire university is proud of you and supports you and we wish you the very best in your careers.

Until the Autumn edition of this newsletter, stay safe.

Professor Helen Whelton

Head of College of Medicine and Health University College Cork



UCC | College of Medicine and Health
Coláiste an Leighis agus na Sláinte

COURSES MY UCC SEARCH MENU

We are responding to Covid-19 in various ways

We need help to collect important samples and research solutions to fight the virus, you can support us at this critical time through donations

[Donate here to help Covid-19 research in Cork](#)

CoMH COVID-19 Research Page Now Live

Our researchers continue to be extremely active in the race to understand and mitigate Covid-19. This research is critical to inform the national and global response to the pandemic in the weeks and months ahead.

Dr Ashleigh Byrne, Research and Innovation Coordinator, CoMH has created a dedicated COVID-19 webpage. Please visit the page [HERE](#) to learn more about the research underway in the university beyond what is featured in this edition.

LETTER TO GOVERNMENT

Head of College Professor Helen Whelton co-signs letter on the urgency for a national research biobank

In early June, Head of College Professor Helen Whelton and the chief academic officers of the seven Irish hospital groups and their respective universities co-signed a letter detailing the urgent need for a national research biobank in Ireland. The letter, which can be read in full [HERE](#), describes how a national research biobank is of vital importance for the country's capacity to test and validate any new antibody or other Covid-19 tests on an Irish population, as well as to facilitate other essential healthcare research.



The College of Medicine and Health has successfully secured funding for 3 projects to date under the government's **Rapid Response** Research Development and Innovation programme established by the Health Research Board (HRB), Irish Research Council (IRC), Science Foundation Ireland (SFI), IDA Ireland (IDA) and Enterprise Ireland (EI). This is a national, coordinated research and innovation programme developed by the government's research and innovation agencies to help respond to the COVID-19 pandemic.

Professor Ivan Perry and team in the School of Public Health

Professor Ivan Perry, School of Public Health, received a significant HRB/IRC funding award of €199,945 for his project "Covid-19: Estimating the burden of symptomatic disease in the community and the impact of public health measures on physical, mental and social well being".

Professor Perry's research will survey thousands of members of the public on their experiences of the pandemic. These findings, along with other data, will be used to create a mathematical model that will inform decisions on the best levels and duration of physical-distancing measures, balancing a range of factors including capacity of the health service, the effects on well-being and economic disruption.

The work will be carried out in collaboration with Ipsos, a global market research firm and in collaboration with the National Health Protection Surveillance Centre.

APC partner with Teagasc to lead Irish Coronavirus Sequencing Consortium

Professor Paul Cotter of Teagasc and the APC Microbiome Ireland received one of the first SFI/EI/IDA COVID-19 response awards of €378,716 in funding for an Irish Coronavirus Sequencing Consortium.

The National Coronavirus Sequencing Consortium, led by Professor Paul Cotter and Dr Fiona Crispie at APC Microbiome Ireland, will analyse the genetic makeup of the SARS-CoV-2 virus in patient samples in Ireland. The data about the genetic sequences of the viruses will be freely available, allowing epidemiologists to monitor trends in Ireland and internationally, and to watch for changes in the virus that could have an impact on the development and delivery of treatments and vaccines.

The consortium partners, include Teagasc, University College Cork, Cork University Hospital, the National Virus Reference Laboratory, University College Dublin, Beaumont hospital, Genomics Medicine Ireland, Trinity College Dublin/St James's Hospital, University of Limerick (UL)/University Hospital Limerick, the National University of Ireland, Galway and Maynooth University.

INFANT Project on Remote blood-pressure monitoring in pregnancy

Researchers at the INFANT Centre, led by Professor Frédéric Adam and Dr Fergus McCarthy, have been awarded €118,877 in SFI funding to carry out a study using remote, connected technology to allow pregnant women monitor their blood pressure without the need to attend hospital. If a pregnant woman's blood pressure is too high for too long and left uncontrolled, it can affect the baby's growth and may be a sign of a potentially life-threatening condition called pre-eclampsia.

The 500 pregnant women who enrol in the project will use an automated device connected to the INFANT Research Centre's LEANBH platform to measure their blood pressure and relay the results to the clinical team. The mothers can then be alerted if their care needs change.

The UCC pilot project at Cork University Maternity Hospital will potentially lead to the connected technology being used for maternity units across Ireland to safely monitor blood pressure in pregnancy, while reducing risk of Covid infection for pregnant women and healthcare workers.

COVID-19 and the Clinical Research Facility Cork (CRF-C)

Throughout the Covid-19 lockdown the HRB Clinical Research Facility in UCC has been a vibrant hub of activity, supporting many Covid-19 related studies as well as continuing to provide vital medications to patients on existing regulated clinical trials.

A registry of COVID-19 patients has been initiated as part of an international cohort study, with data from over 158 patients captured by CRF-C to date. CRF-C clinical operations are also supporting a point of care study, testing over 500 healthcare workers for presence of Covid-19 antibodies. To date over 300 have been recruited onto this study. The study will provide further information around immune response to COVID-19 infection and infection rates in Health Care Workers.

The CRF-C Regulatory team have obtained research ethics approval for eleven COVID-19 related studies during this period. In addition, the team have created a virtual GCP course which has been delivered to over seventy clinical researchers in Ireland. The Statistics Team have been actively engaged in rapid review of COVID-19 clinical trials as they are published, working collaboratively with other statisticians. CRF-C are at advanced stages of establishing REMAP-CAP clinical trial. This is an international multicentre regulated trial, which offers additional medicines to treat COVID-19 patients in intensive care.

In the midst of all the additional trial activity since the COVID-19 lockdown, the CRF-C have also successfully completed a HRB interim funding review with an International Review Panel. Throughout this recent intense period of activity, staff in CRF-C have made many personal sacrifices (wedding cancellation, holiday cancellations, working flexible hours etc.) and at all times prioritised the patients, recognising that research on COVID-19 is key to saving lives.



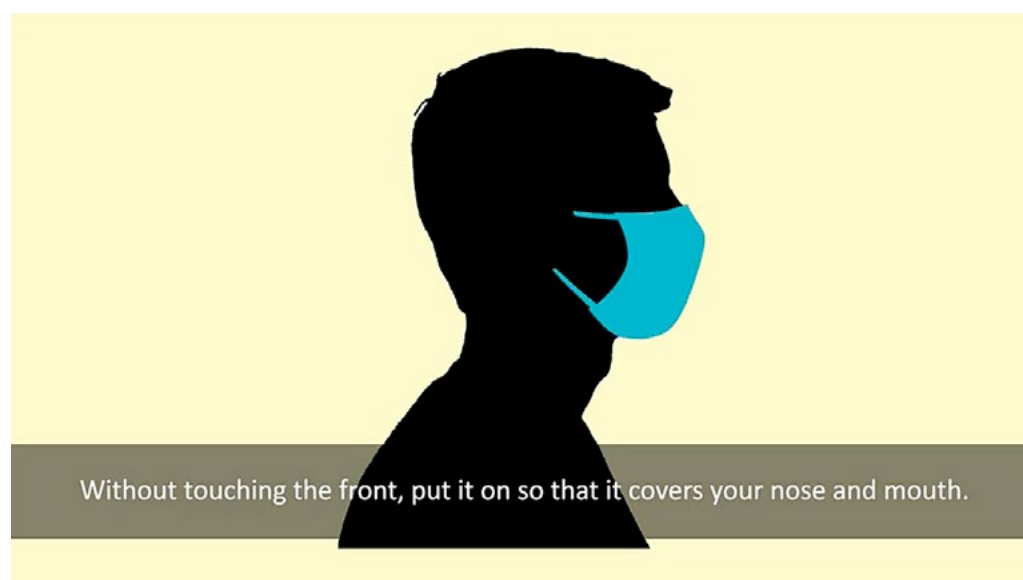
Pictured above (l-r): Some of the team working on the COVID-19 Point of Care study at CUH. Kevin Conlon, Registrar; Paula Finnegan ID SHO; Stephen O’Riordan, Consultant; Maeve Kelsey CRF-C; Jean Foley, CRF-C; Corinna Sadlier ID Consultant; Deirdre Flynn CRFC; Lisa McSweeney CRF-C.



Advice on Wearing a Face Covering

Wearing a cloth face covering to mitigate the spread of COVID-19 is becoming an increasingly integral part of our daily lives. Both the **HSE** and **gov.ie**, have recommended that people wear a face-covering in situations where it is difficult to practice social distancing, staying 2 metres apart. With the university academic year resuming shortly, we take a look at the latest practices and advice around face-coverings in Ireland.

You should also wear a face covering in a healthcare setting – this includes hospitals, GP surgeries, care settings, nursing homes and dental practices. And, when visiting people who are cocooning, such as people over 70 or people who are medically vulnerable. The strong recommendation is to wear face masks in all settings where it is difficult to stay 2 metres apart from people.



WHY IS IT IMPORTANT TO WEAR A FACE MASK?

Wearing a cloth face covering in public may reduce the spread of COVID-19 in the community. Specifically, it may help to reduce the spread of respiratory droplets from people infected with coronavirus. Cloth face coverings may help to stop people who are not aware they have the virus from spreading it.

You can read more on the government's advice on how to protect yourself and others **HERE**.

Along with the latest information for our students, prospective students, staff and contractors on the central University COVID-19 response **HERE**.

Watch Video (link below) on How to Safely Wear a Face Covering.

<https://youtu.be/OBR0udolaiY>



ARE FACE COVERINGS MANDATORY IN IRELAND?

Face coverings are mandatory on public transport. The Government has recently announced that face coverings must now also be worn in all shops, retail settings and shopping centres and this will soon come in to law.

CRF-C to play lead role in WHO COVID-19 Solidarity Trial

On the 26th of June Minister for Health, Simon Harris TD signed an Agreement on behalf of the Government of Ireland to enable Ireland's participation in the WHO COVID-19 Solidarity Trial.

The director of the CRF-C, Professor Joe Eustace was nominated by the Minister of Health to be the National Chief Investigator for the WHO Solidarity Clinical Trial in Ireland, with the Department of Health being the Sponsor of the Trial in Ireland.

The WHO Solidarity Trial is an international collaboration amongst WHO and participating international member countries and researchers to evaluate potential COVID-19 treatments. The Solidarity Trial has recruited over 5000 patients to date, in over 400 hospitals and across 35 countries, with another 100 countries awaiting approval to participate in the trial.

Minister Harris said "I am delighted that Ireland is playing its part in the global response to the COVID-19 crisis, in solidarity with our international partners. There are still no proven treatments for COVID-19 and it is really important that any potential treatments are prescribed within the context of clinical trials where patients provide consent and everything is controlled and monitored."

Professor Joe Eustace, Professor of Patient Focused Research at UCC and the Lead Investigator for the trial said: "The Solidarity-Ireland Trial is sponsored by the Irish Government; hosted by UCC and coordinated by HRB Clinical Research Coordination Ireland; the 6 main University based Clinical Research Facilities and Centres and their affiliated hospitals are collaborating on this critical trial in order to establish the safety and effectiveness of potential treatments for Irish patients suffering with COVID-19. The trial may allow us to identify treatments that will reduce the severity of the infection, decrease the need for ITU care and reduce the infection's mortality rate."





HIHI partners to support Irish owned businesses deliver innovative solutions to healthcare during COVID-19

The Health Innovation Hub Ireland (HIHI) is supporting Ireland's response to COVID-19. Their COVID-19 Solutions Portal has captured nearly 200 recent innovations designed to respond to the pandemic in various ways. By working with their government partners including the Department of Business, Enterprise and Innovation, the Department of Health, Enterprise Ireland, and the HSE, many of these solutions have now been implemented to support healthcare during the pandemic. Examples of these innovations and partnerships, can be viewed on the HIHI video [HERE](#).



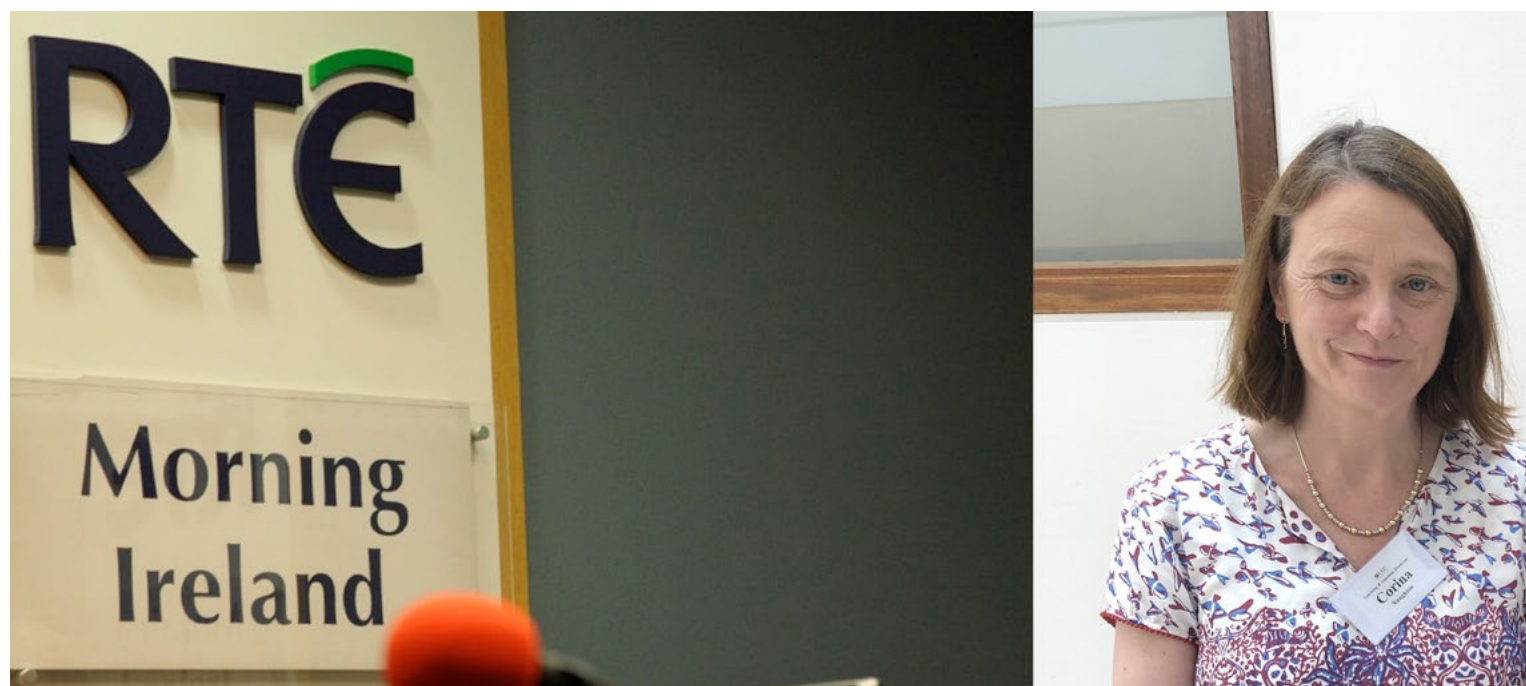
EMERGING LEADER PLACE

Left: Professor Patricia Kearney, Senior Lecturer in Nursing and Director of Graduate Research in the School of Nursing & Midwifery.

Professor Patricia Kearney earns place on World Heart Federation Salim Yusef Emerging Leaders Programme

Professor Patricia Kearney of the School of Public Health recently earned a place on the World Heart Federation Salim Yusef Emerging Leaders Programme, an international training programme in cardiovascular health policy research, health systems, and implementation science. The programme was created in 2014 by WHF Past President, Professor Salim Yusuf, to form and develop a long-term cadre of experts who collaborate, research, and act to reduce premature mortality from cardiovascular disease (CVD) globally. Only 25 Emerging Leaders are selected each year based on their demonstration of long-term promise through their early careers, and creativity and passion for improving cardiovascular health and preventing CVD.

29th May 2019: School of Nursing & Midwifery takes over the airwaves of National Radio



Professor Corina Naughton on Morning Ireland

Professor Corina Naughton featured on Morning Ireland to take part in a discussion on the impact of COVID-19 on the nursing home sector. The piece was titled NHI (National Nursing Homes in Ireland): Lessons must be learnt from pandemic in care homes and also featured Professor Seán Kennelly, Consultant Physician in Geriatric medicine at Tallaght University Hospital.

Professor Corina Naughton is a Professor of Clinical Nursing in Older Person's Healthcare (joint appointment between UCC and the South South West Hospital Group). Corina very eloquently articulated the case for postgraduate gerontological nursing programmes and the knowledge and competencies developed through such programmes. Corina highlighted the need for nurses with specialist gerontology education within nursing homes. You can listen to the piece [HERE](#).

Pictured above: Professor Corina Naughton, Professor of Clinical Nursing in Older Person's Healthcare, on RTÉ Morning Ireland.



Dr Sile Creedon on Radio Na Gaeltachta

Dr Sile Creedon was interviewed on Radio Na Gaeltachta (Saol O'Dheas) titled: Galair Togálacha (Transmissible infections). The interview is accessible [HERE](#).

Sile spoke eloquently for 12 minutes in Irish - well done Sile. The interview covered topics such as the importance of hand hygiene in preventing infection transmission, the work environment of the hospital, and the importance of maintaining the nurse patient ratio. Hospitals currently supporting nurses/midwives who are working very hard during COVID-19. The School of Nursing and Midwifery being guided by the University College Cork who are guided by NPHE. She also spoke as to the importance of Public health advice.

The School continues to support students with online learning, whilst keeping the emphasis on hands on learning in clinical skills and simulation labs and in clinical practice environments. Sile touched on the international year of the nurse/midwife and the important role of nurses and midwives within the health services during COVID-19. Sile referenced the new Banksy artwork paying tribute to nurses, midwives and healthcare workers.

Professor Chris Lynch Recipient of Teaching and Learning Research Fellowship



recognise, reward and celebrate those who have demonstrated, through practice, scholarship and leadership, a deep commitment to the enhancement of teaching and learning in higher education. They will also develop a robust evidence base for future teaching and learning enhancement decision-making across the sector.

Professor Lynch is also Editor-in-Chief of Journal of Dentistry and Vice-Dean of the Faculty of Dentistry at the Royal College of Surgeons in Ireland. Previously, Chris was Professor in Restorative Dentistry & Dental Education at Cardiff University. Chris was awarded a Senior Doctorate based on his published works in clinical dental education in 2019. He is a Principal Fellow of the Higher Education Academy, and has received the Award of Excellence in Dental Education from the Association for Dental Education in Europe. Chris delivers invited lectures and examines internationally.

Further information about Ireland's Teaching and Learning Research Fellowships is available [HERE](#).

Above: Professor Chris Lynch, professor and consultant in Restorative Dentistry.

Congratulations to **Professor Chris Lynch**, professor and consultant in Restorative Dentistry, who was announced at the beginning of June as a recipient of Ireland's inaugural Teaching and Learning Research Fellowships. This is one of Ireland's most prestigious national individual teaching and learning award in higher education.

A joint initiative of the National Forum for the Enhancement of Teaching and Learning in Higher Education and the Irish Research Council, the Fellowships



Left: PhD Student Mark O'Sullivan.

PhD Student Mark O'Sullivan wins Enterprise Ireland 2020 Student Entrepreneur Awards

It was recently announced that PhD student Mark O'Sullivan is the winner of the Enterprise Ireland 2020 Student Entrepreneurship Awards. Mark, who is completing his PhD in the College of Medicine and Health's INFANT Research Centre, won the award for his development of a medical device for the early detection and monitoring of brain injuries in newborns. The device is called Neurobell, and it aims to help clinicians diagnose abnormal brain activity faster and with greater accuracy.

Mark received a €10,000 cash prize along with the provision of specialist advice and expertise from Enterprise Ireland to help him market his innovative device.

College of Medicine and Health Manager Kathryn Neville honoured as a UCC Hero



Above: Ms Kathryn Neville, CoMH College Manager.

CoMH College Manager Kathryn Neville was honoured as a hero for her dedication to the COVID-19 response in UCC as part of the UCC Heroes initiative on WorkVivo, which honours those UCC Heroes who have made an exceptional, if hidden contribution to the university community, during the pandemic.

Kathryn was nominated by Dr Ger Culley. Here, he tells us why he nominated Kathryn.

“As College Manager in Medicine and Health, Kathryn has been forefront in a number of projects of high impact to UCC and the community throughout the pandemic:

- Kathryn has been involved in the HSE moves into the various UCC campus locations, in the Erinville, in Brookfield, and in the Boole Basement
- Kathryn acted as an invigilator for the Medicine exams held on campus in April, ensuring our new doctors were able to join the frontline response
- Kathryn was part of the Continuity Team, making sure that all the M&H exams took place online and were safely managed, including online conferrings

- In her spare time, Kathryn was the UCC lead, managing the setup of Cork’s primary contact tracing centre in the Boole Basement
- Her energy and commitment to service for the university and our broader community in a time of crisis was an inspiration to all those around her.”

Click [HERE](#) to keep track of all of our UCC Heroes.

How to nominate a UCC Hero/UCC Heroes: Nominations can be made by any person with respect to an individual or team worthy of celebration as a UCC Hero or Heroes.

Submissions are to be emailed to traininganddevelopment@ucc.ie detailing:

1. 100 words explaining the contribution of the person/team during COVID-19
2. A high-resolution photograph of the person/team
3. Contact details of the nominating staff member.

DR FRANCES SHIELY RECEIVES HRB TRIALS METHODOLOGY RESEARCH NETWORK SWAT 2020



Above: Dr Frances Shiely, Senior Lecturer School of Public Health, Director MSc Clinical Trials and Director of Education for the HRB CRF-C.

Congratulations to Dr Frances Shiely who was awarded the HRB TMRN SWAT 2020 award, for the second year running. The project was peer reviewed and awarded the highest marks. This year-long project “Does patients’ guided self-reflection on their illness increase engagement with and recruitment to clinical trials: a mixed-methods study within a trial (SWAT)” will begin in September. Ms Ellen Murphy, BSc Public Health Sciences graduate, will take up a research assistant position to conduct both SWAT awards. Frances also secured two HRB TMRN Summer Scholarships for 2020. Ms Aoife O’Keeffe (3rd Year BSc Public Health Sciences) will work on a project on trial management and Ms Danielle Murphy (1st year BSc Medical and Health Sciences) will look at the role of the research nurse in predicting clinical trial outcomes.



Pictured (l-r): Dr Olivia O’Leary, Senior Lecturer Dept Anatomy and Neuroscience and Dr Erin Harris. Photo: B.Riedewald.

Two awards for ‘Outstanding Junior Scientist’ Dr Erin Harris

Congratulations to Dr Erin Harris, Department of Anatomy and Neuroscience who has been awarded an **IBANGS ‘Outstanding Junior Scientist Travel Award’** and a **‘Neuroscience Ireland Travel Bursary’** to attend FENS 2020. Dr Harris, who is a postdoctoral researcher working with Dr Olivia O’Leary in the Department of Anatomy and Neuroscience, is delighted to receive both prestigious travel awards.

Erin received the **IBANGS** (International Behavioural and Neural Genetics Society) **Outstanding Junior Scientist Travel Award** for her research abstract ‘Stress during puberty exerts sexually dimorphic effects on antidepressant-like behaviour and monoamine neurotransmitters in adolescence and adulthood, the \$500 stipend awarded to Erin is to attend the FENS Forum this July. Neuroscience Ireland were also impressed with Erin’s application and awarded her the **Neuroscience Ireland Travel Bursary** for FENS 2020 and a cheque for €300 to use towards the costs of the conference, as the FENS forum will now be entirely virtual the awards will go towards registration fees.

Professor Denis O'Mahony ranked top-rated expert in inappropriate prescribing in the world

At the beginning of May, Professor O'Mahony of the School of Medicine was ranked as the top-rated expert in inappropriate prescribing worldwide according to Expertscape, which objectively ranks people and institutions by their expertise in more than 29,000 biomedical topics. Professor Stephen Byrne, Head of the School of Pharmacy, was also ranked #7 and Dr Paul Gallagher of the School of Medicine # 8 worldwide on the same list, with UCC being ranked #6 among the top international institutions working in this area of research.

Furthermore, Professor O'Mahony was recently awarded the Ephor medal by the Dutch Geriatric Medicine Society at their annual scientific conference

in Den Bosch in the spring. The Ephor medal is "an award for healthcare providers who have exceptionally contributed to better pharmacotherapy for frail older people. This may be evident from publications in speech and writing within the Dutch or international language area and which relate to education and / or practical research and which are considered to be of international importance to realizing the objectives of Ephor."

Ephor is the Expertise Center for Pharmacotherapy for the Elderly, a statutory body in The Netherlands (www.ephor.nl). Professor O'Mahony is the second recipient of the Ephor medal since its inception in 2014; Professor Paul A.F. Jansen (University of Utrecht) was the first recipient that year.



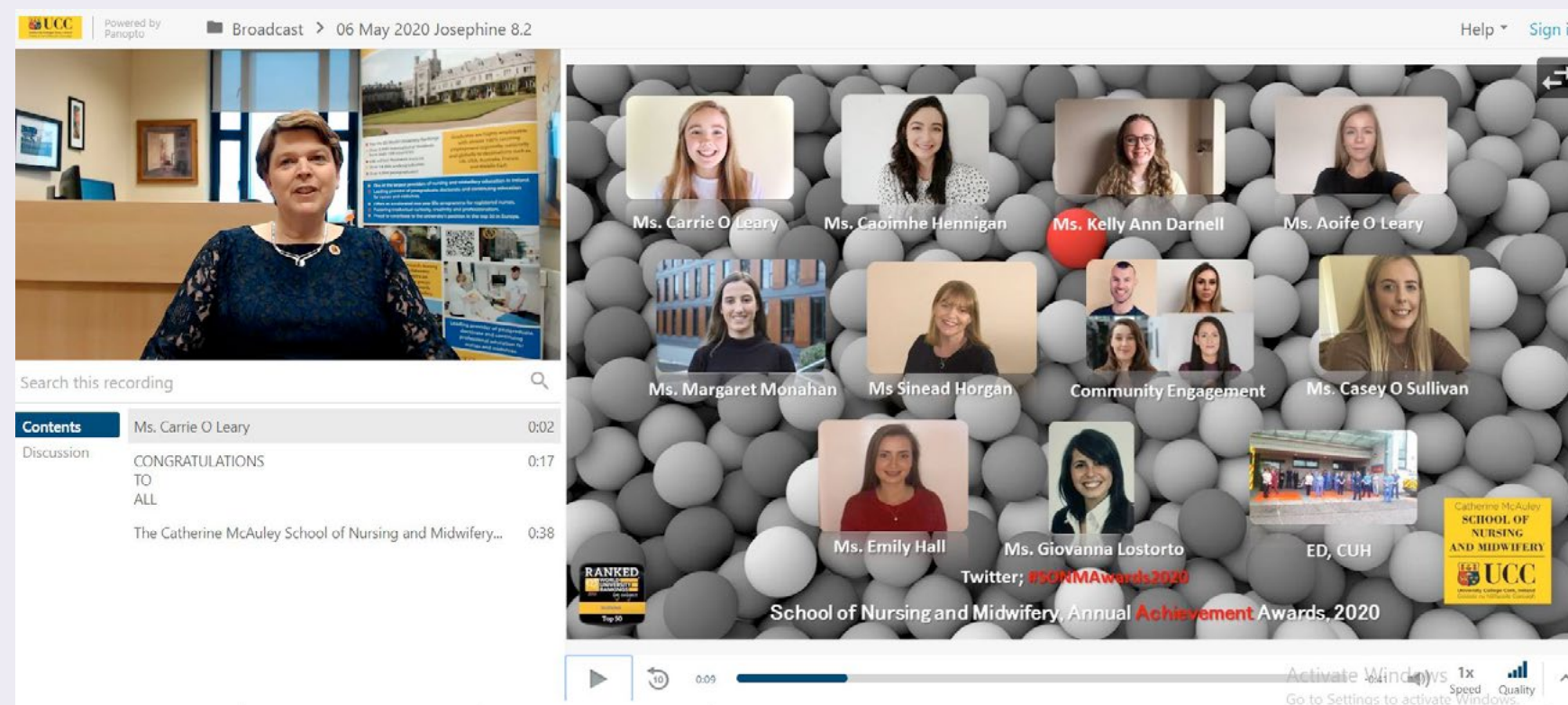
Above: Professor Denis O'Mahony, Professor of Medicine UCC and Consultant Physician in Geriatric Medicine to Cork University Hospital and St. Finbarr's Hospital, Cork.



The School of Nursing and Midwifery Annual Achievement Awards

To coincide with the 200th anniversary of the birth of Florence Nightingale, the World Health Organisation has designated 2020 as the International Year of the Nurse and the Midwife. The School of Nursing and Midwifery Annual Achievement Awards took place virtually to coincide with the International Day of the Nurse, May 12th. Eleven awards were presented to students who exhibited excellence in all aspects of university life, academia, clinical practice, and the student experience. These included Undergraduate and Postgraduate Student of the Year, Student Leader of the Year, Outstanding Contribution to Student Life, Contribution to Sport, Community Engagement Award, Community Activism Award, Patricia J Power Excellence in Clinical Practice, Keady Clifford Excellence in Children's Nursing, Preceptor of the Year, Best Clinical and Quality Learning Environment which was won by the Emergency Department, Cork University Hospital.

The ceremony was opened by Professor Josephine Hegarty, Head of School. There was a special address by the President of UCC, Professor Patrick O'Shea who commended students on their contribution to the work of the Irish health services. Over 200 School of Nursing and Midwifery Year four BSc intern nursing and midwifery students continue to study, work and contribute within the health services. Over 270 undergraduate students



have taken up temporary contracts as Health Care Assistants during the pandemic. Staff from within the School are also contributing to the national Covid-19 effort through their work in supporting contact tracing, volunteering within the health services and in conducting COVID-19 related research and evidence-based synthesis. The School of Nursing and Midwifery, UCC has worked closely with the HSE and all Health Service Providers to ensure the health service is supported. UCC and the Mercy University Hospital worked together to enable the provision of onsite clinical services at BHSC to deliver chemotherapy to patients with cancer.

Above left (l-r): Professor Josephine Hegarty, Head of the School of Nursing and Midwifery; Ms Carrie O'Leary, Undergraduate Student of the Year 2020; Ms Caoimhe Hennigan, Student Leader of the Year 2020; Ms Kelly Ann Darnell, Award for Outstanding Contribution to Student Life 2020; Ms Aoife O'Leary, Award for Recognition in Sport 2020; Ms Margaret Monahan, Community Engagement 2020 Individual Award; Ms Sinead Horgan, Postgraduate Student of the Year 2020; David Fitzgerald, Avril Creedon, Louise Power and Stephanie Ryng, Community Engagement Group 2020 Award; Ms Casey O'Sullivan, Keady Clifford Excellence in Children's Nursing Award; Ms Emily Hall, Patricia J. Power Excellence in Clinical Practice Award; Ms Giovanna Lostorto, Preceptor of the Year 2020; Emergency Department at CUH, Best Clinical & Quality Environment of the Year 2020.

Professor George Shorten co-authors EU Consensus Statement on Competency-based Training of Anaesthesiologists



Pictured above: Professor George Shorten, Professor of Anaesthesiology and Intensive Care Medicine and Consultant Anaesthesiologist UCC.

Anaesthesiology has become the first medical discipline in Europe to express a unified and comprehensive vision for Competency-based Training and Education (CbMET). In a Consensus Statement produced jointly by the European Board of Anaesthesiology (UEMS) and the European Society of Anaesthesiologists published in the European Journal of Anaesthesiology, the Statement expresses the need for and methodology required to change to CbMET. You can read the Statement [HERE](#).

The Statement, authored by UCC's Professor George Shorten, Professors Edoardo de Robertis, President of the EBA (UEMS), Zeev Goldik, Immediate Past President of the ESA and others, places the need for change in training in context, explaining that the move from time-based to competency-based medical education has been driven by society's requirement for greater accountability of medical practitioners and those who train them.

With such diverse efforts underway around the world to improve the training of doctors, the Statement provides a clear "direction of travel" for the discipline. Key elements will be a curriculum which is built on or derives from shared, unambiguously defined learning objectives, each of which is associated with a measurable outcome. These specific outcomes are or will be expressed as milestones or competencies, each of which relates to one or more overall domain(s) of competence that together characterise good professional behaviour. The requirements of CBMET have led to the development of more scientifically rigorous forms of training and assessment.



6th TRIAL METHODOLOGY
SYMPOSIUM
Improved trials for better health
decisions for an informed public
14-15 OCTOBER 2020

OCT 14	14:00 – 16:00
OCT 15	10:00 – 12:00
OCT 15	14:00 – 16:00

UCC CRF-C TMRN

<https://www.hrb-tmrn.ie/training-education/upcoming-events/>
Find us on twitter and linkedin #trialmethodology

HRB TMRN SYMPOSIUM 2020

SAVE THE DATE: UCC will host the HRB TMRN Symposium on October 14th and 15th this year.

The theme of this year's event is: Improved trials for better health decisions for an informed public. This will of course be online now, but it promises to be an engaging event. Registration will be opening shortly.

UCC microbiome spinout company acquired by Danish company in €80m deal

A UCC spinout company, PrecisionBiotics Group Ltd., has been acquired by the leading Danish bioinnovation company Novozymes.

PrecisionBiotics Group Ltd., which has been a long-standing industry partner of APC, discovers, develops and markets probiotics (live bacteria), which can improve gut health in animals and humans. Its products include Alflorex® and Zenflore® and it employs 33 staff at its sites at Cork Airport Business Park and Teagasc Moorepark Fermoy. Novozymes is the world leader in biological solutions and the world's largest provider of enzyme and microbial technologies, it acquired PrecisionBiotics Group Ltd. in a €80 million deal.

PrecisionBiotics Group Ltd. started as Alimentary Health Ltd., spinning out in 2001 to commercialise intellectual property created from research in microbiology, gastrointestinal medicine and surgery. Since then, it has become a long term collaborator with UCC primarily through its APC Microbiome Ireland SFI Research

Centre, initially lead by Professor Fergus Shanahan, with funding support from a number of Irish Government Institutions, the European Union and several other sources. This research and knowledge transfer partnership with UCC has supported PrecisionBiotics' successful

growth to hold a leading position within probiotics for human gut health.

“Two decades of research and support has contributed to the development of products which have improved the quality of life for so many people” commented Professor Anita Maguire, Vice-President for Research and Innovation at UCC. “Cork is globally recognised as having a world leading academic community engaged in gut health research and this acquisition will allow PrecisionBiotics to further grow its presence in this region.”

“PrecisionBiotics Group Ltd, lead by Dr Barry Kiely, a UCC graduate, was the foundation industry partner in APC Microbiome Ireland, a Science Foundation Ireland (SFI) research centre, that focuses on the microbiome and gut health at the interface between food and health. APC, which is globally recognized for its research leadership in microbiome science, has collaborated very closely with PrecisionBiotics for over two decades. We are delighted to have been part of this success story for Cork and Ireland” said Professor Paul Ross, Director of APC Microbiome Ireland.



SOPHIA Launched: Three APC Investigators partner in an international obesity research consortium

APC Investigators, Dr Susan Joyce, Dr Orla O'Sullivan and Dr Harriet Schellekens, have joined 28 other leading partners from civil society, academia and industry from 12 countries to better understand obesity and optimise future treatments.

The international, public-private research consortium 'SOPHIA', (Stratification of Obese Phenotypes to Optimize Future Obesity Therapy), aims to improve risk assessment of complications of obesity and predict treatment response for people with obesity.

Obesity is a global pandemic currently affecting around 150 million people in Europe and 650 million people worldwide. Obesity complications are common but we cannot yet predict who will develop any of the 200 known complications of obesity. Moreover, there are insufficient predictors for who will respond to obesity treatments. SOPHIA will identify, characterise and stratify clinically-meaningful subpopulations of patients living with obesity to match the right treatment for the right person at the right time. SOPHIA will provide evidence-based classification of predictors for obesity complications, and response to obesity treatment, while also identifying and charting models for sustainably developing treatment pathways that will be valuable for patients, healthcare systems, researchers and clinicians.

The voices of people living with obesity will be at the heart of SOPHIA through the establishment of a Patient Advisory Board. It will ensure that patients' insights, opinions and wishes are placed at the core of SOPHIA and interwoven into the multiple layers of the study. The research group will use its findings to contribute to

a more patient-centric and equitable narrative around obesity and its multiple impacts on individuals from both a social and medical perspective. It all starts with obesity being a chronic disease, not something people choose to live with.

The €16 million in funding for this 5-year project has been granted from the **Innovative Medicines Initiative** (IMI) - a joint undertaking of the European Commission and the European Federation of Pharmaceutical Industries and Associations (EFPIA); JDRF (formerly the Juvenile Diabetes Research Foundation); the Obesity Action Coalition; and T1D Exchange. SOPHIA is being coordinated by Prof. Carel le Roux, obesity physician at the Diabetes Complications Research Centre at University College Dublin. SOPHIA Project Leader is Dr Marianne Ølholm Larsen Grønning of Novo Nordisk.

Read more via **Silicon Republic**.



Pictured above (l-r): Dr Susan Joyce, Dr Orla O'Sullivan and Dr Harriet Schellekens.

Final year Public Health student Shane Creagh’s journey to recovery from four years of anorexia and current fundraising campaign

My journey (4 years of anorexia)

Sitting the Leaving Cert in 2016, while often going to bed starving with a pantry full of food downstairs, proved difficult. Eating disorders often encompass restricting your diet, with that comes immense disinterest in other hobbies. I went from participating in so many different clubs to weighing myself every morning and night, before or after every meal, on every social night out or in, all of which tore my mental health apart. My condition reached its peak at 54kg (6 feet tall), by then I was told if I continued I wouldn’t see the day of graduation. *I suppose it’s a shock factor when people look at me now. I say my parents were supposed to be burying me... that puts things into perspective.* Most of this occurred during that exam period, but also followed me through 1st year of college. I cannot put into words the pains going to bed, because it was starvation, my body was eating itself to survive. We often associate frailty with the elderly, well I can tell you if someone saw me at the age of 18 to 20 you wouldn’t be saying that.

Recovery

Often anorexia is associated with high achievers, with those who are perfectionists, yet I can say that isn’t the case because we aren’t in control, the calories are. Accepting I was anorexic was just the start, being able to talk is the key to this, to all mental health conditions. It’s almost like that ingredient that suits all dishes, it works in combination with everything. From then on, it was the work of the dietitian and Bodywhys, both are crucial to changing your perception of food, understanding the extremity of your condition.

It wasn’t till third year of college when I started putting on serious weight. Now with my active past and obsession with sport, I kept busy at the gym. Here I managed to put on 24 kg of weight (now at 80kg), and I dedicated myself to my degree in Public Health. I was able to focus on building the best me I could. To be happy with who I was, to be open about my past and not fear talking about how I felt day by day with friends and family. Taking into consideration being the minority of anorexia cases (males account for 10%), followed by my high activity in sport and being sociable, meant I had a unique platform to push mental health awareness, a story that shows how horrible a condition can be for anyone regardless of how others see you.

Fundraiser

I have setup a fundraiser to support full treatment for someone with an eating disorder. That means raising €2000 to fund 40 sessions (€50 each) of therapy. The fundraiser is available on iDonate.ie under “my journey with anorexia nervosa” (Shane Creagh), Instagram (@Shane_Craobhach), Facebook (@Shane Creagh). Why I chose to do this is because in Ireland access to care varies between public and private patients with eating disorders, sometimes it’s more difficult depending on your geo-location, your ability to pay and severity. For example in Dublin, many practices are privatised with rates, in combination, exceeding the monthly rental fees of accommodation. The fundraiser helps at least one person, to give them the fighting chance which allowed my parents to avoid burying their son at 18.

The underlying message of this campaign is to break down mental health stigma in Ireland, to treat mental health with the same respect we treat cancer. To give it the attention that this silent killer deserves. It shouldn’t come to a eulogy to let others know we could have helped. We need to push the barrier, we need to talk more.

To donate to Shane’s fundraiser for For Bodywhys: The Eating Disorders Association of Ireland and Cork Mental Health Foundation, click here:

www.idonate.ie/fundraiser/11385129_my-battle-with-anorexia-nervosa.html



Pictured left: 2016, the beginning of Shane’s journey to recovery. **Above:** 2020, Shane one year fully recovered.

College of Medicine and Health Conferrings

Congratulations to all the students and staff members who graduated in the College of Medicine and Health's Virtual Conferring Ceremonies in April and June. It is a true testament to your character and resolve to have excelled during these unprecedented times. The entire university is proud of you and supports you and we wish you every success in your careers.



Picture above: Professor John O'Halloran, Deputy President and Registrar of UCC; Dr Colm Henry, Chief Clinical Officer, HSE and Consultant Physician in Geriatric Medicine, MUH; Ms Juliette Buckley, Lecturer in Surgery and Consultant in Breast and General Surgery, Mater Private Hospital Cork; UCC Professor Patrick O'Shea, President of UCC; Professor Helen Whelton, Head of the College of Medicine and Health and Chief Academic Officer to the HSE South South-West Hospital Group; Professor Tony O'Brien, Clinical Professor, UCC School of Medicine and Consultant Physician in Palliative Care, Marymount University Hospital and Hospice; Dr Deirdre Bennet, Senior Lecturer in Medical Education and Head of Medical Education Unit UCC; Professor Paula O'Leary, Dean of UCC School of Medicine and Consultant Physician and Immunologist, CUH.

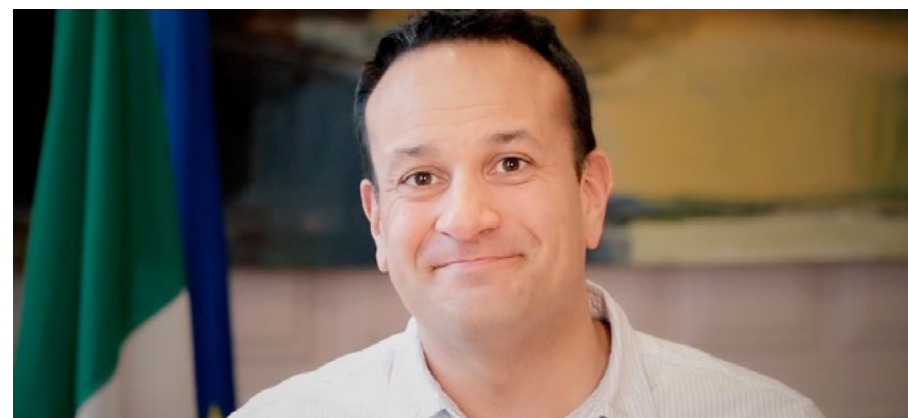
Medical Conferrings

The Medical conferrings took place virtually on April 17 in line with governmental guidelines. The ceremony saw a total of 197 graduates conferred - the first in UCC's 175-year history to be conducted entirely online. Tánaiste Leo Varadkar (in his role as Taoiseach at the time of the Conferrings) was one of the keynote speakers at the graduation. He said that for the first time in Ireland, every graduate of medicine will be offered an internship within the health system as part of the effort to battle the COVID-19 pandemic. Mr Varadkar made the pledge as he addressed CoMH Medicine graduates of 2020 - whose exams and graduation were brought forward to get more doctors into the field amid the pandemic. We thank Professor Tony O'Brien, Consultant Physician in Palliative Medicine Cork University Hospital and Dr Colm Henry, Chief Clinical Officer of the HSE who delivered inspiring words in their speeches during the ceremony.

Watch the ceremony recording [HERE](#). Follow #UCCMedGrad20 story on twitter [HERE](#).

Congratulations to all of our Medical Graduates. Visit our Facebook page [@UCCMedHealth](#) where you can read more about our graduates (pictured far right).

Pictured right: Former Taoiseach (4 June 2017 – 27 June 2020) and current Tánaiste Leo Varadkar delivering his speech to the new graduates.



Pictured clockwise from top left: Aaron Kwun Hang Ho, Colm Hannon, Maggie Ann Bacon, Kate Henry, Patrick Hogan.

Summer Conferrings

The summer conferrings were broadcast virtually with an accompanying congratulations wall on 18th June on the UCC website. A total of 180 CoMH students were conferred from across the College having **completed programmes** from each of our six schools. The keynote speaker Simon Coveney, Minister of Foreign Affairs and Defence, (in his role as Tánaiste at the time of the Conferrings) gave inspiring words during the ceremony. He highlighted how the world has and continues to dramatically change with many of our graduates already working on the frontline during COVID-19. His main message to graduates was to decide what they want for their lives, and to take the confidence and recognition of their UCC qualification to remain adaptable and to lead the change that needs to take place in the world today.

Watch the ceremony recording and view messages of congratulations [HERE](#).

Congratulations to all of our CoMH Graduates. Visit our Facebook page [@UCCMedHealth](#) where you can read more about our graduates (pictured below and right).



Pictured above (l-r): Rhys Earl, BSc Public Health; Mishaim Mian, Dentistry; Julie Miller, Dentistry.

Pictured above from top (l-r): Sr Maria Mark Obotamah, BSc Nursing Studies; Mrs Blessy Varughese, BSc Nursing Studies; Caoimhe Hennigan, Children and General Nursing; Chloe Enright, BSc Public Health; Layal AlFardan, Dentistry; Aine Kearns, Speech & Hearing Sciences.

CUH Pathology Department joined by Irish Rugby Star Peter O'Mahony on Walk/Run for Cancer Diagnostic Equipment

As the Covid-19 restrictions eased the Munster and Ireland star Peter O'Mahony was at Cork University Hospital (CUH) on June 20th to support staff from its Pathology Department in their on-going efforts to raise much needed funds for cancer diagnostic equipment. Following on from the 'Climbing Everest event' led by the CUH Oncology team and the Karen Fenton memorial walk, the Pathology team supported by over 300 people, in 'socially distancing' teams, across Munster and around the world, set about on the challenge of covering the 650km Ring of Munster. The challenge was met and indeed surpassed with over 2000kms covered in the event. Thanks to the ongoing generosity of all those who are donating to this cause, as of July 1st the CUH Charity has reached over 43% of their required target for the cancer sequencing device.

CUH's pathology department is one of the largest accredited labs in Ireland delivering cancer pathology services for hospitals across Munster. Its 100-strong team, which includes pathologists and scientists, deal with more than 60,000 specimens annually with about 80% of their resources and effort directed towards cancer. Their analysis of tumours plays a key role in the treatment decisions made by oncologists. The Ion Torrent™ Genexus™ Integrated Sequencer is the first Next Generation Sequencer that automates the entire specimen to report workflow within a single day, replacing the average turnaround time presently for this testing of over 2 weeks when it is outsourced.

Dr Bill Bennett, Head of Department, Pathology Department CUH, said: *"This technology will greatly enhance this service at CUH enabling us to analyse for multiple genetic abnormalities in each cancer specimen at the same time. The faster turnaround time for cancer patients and their families across the region with this technology will have huge benefits. A comprehensive molecular profile of a tumour from each individual patient will provide targets for truly personalised oncological therapy."*

Professor Louise Burke, Professor of Pathology, UCC/CUH, said: *"Having this technology to analyse for multiple cancer mutations is a hugely*

valuable clinical and research resource that will enhance our strong links with our academic partners and collaborators, UCC, CIT & Clinical Trials Ireland. It will further ground-breaking research as well as having the immense potential to improve cancer patient quality of life and survival."

Fundraising to secure this NGS technology is on-going and all donations are gratefully accepted (www.idonate.ie/CUHCCancerCampaign). The Pathology Team are extremely grateful to all those who participated in the event and made it such a success (More pictures from the event can be accessed on [#PullTogetherCUHC](https://twitter.com/PullTogetherCUHC)).



Pictured above (l-r): Dr Julie McCarthy, National Clinical Lead Clinical Director Programme HSE and Consultant Cytopathologist, CUH; Dr Bill Bennett, Director of Symptomatic and Screening Breast Pathology at Cancer Centre South/CUH; Mr Michael Nason, CEO, CUH Charity; Mr Paul Moriarty, (forward in suit), Director of Student Experience, UCC; Professor Paula O'Leary, Dean, School of Medicine, UCC; Ms Reiltin Werner, Chief Medical Scientist, CUH; Professor Louise Burke, Professor of Pathology UCC/CUH.

School of Pharmacy and APC Microbiome Ireland engage with secondary school teachers on the topic of Microbial Diversity, Antibiotics & Antimicrobial resistance (AMR)



Dr Teresa Barbosa and Dr Suzanne McCarthy from the School of Pharmacy and Dr Aimee Stapleton from APC Microbiome Ireland were delighted to participate in the STE(A)M in Junior Cycle 2020 CPD Calendar programme by facilitating workshops for secondary school teachers, developed as part of the new STEAM curriculum Junior Cycle for Teachers. The aim of these workshops is to provide professional learning for Junior Cycle teachers with an interest in using societal challenges as a stimulus to engage within and across subject areas.

The School of Pharmacy and APC Microbiome Ireland workshop, addressing the global challenge of Microbial diversity, Antibiotics & Antimicrobial resistance (AMR), was delivered in Cork, Galway and Dublin to over 60 teachers and was very motivating to see so much enthusiasm and interest from the attendees.

Well done to the JCT team for coordinating such a fantastic STE(A)M engagement programme!

Pictured left (l-r): Dr Aimee Stapleton, APC Microbiome Ireland, Dr Teresa Barbosa and Dr Suzanne McCarthy, School of Pharmacy lecturers at the Dublin workshop held at Dublin Zoo.

First virtual conference a great success for School of Nursing & Midwifery



Above: Organising committee doing the last run through before the big day. Sitting (l-r) Dr Patricia O'Regan, Ms Nuala Walshe, back (l-r) Ms Gretchen Jordaan, Ms Carol Condon.

The School of Nursing & Midwifery hosted its first virtual conference on June 24th, entitled “Enhancing cultural competence using simulation based education”. The conference addressed matters relating to diversity and inclusion, patient safety and simulation and is the culmination of a very successful 3 year research project funded by Erasmus through the British Council. It involved collaboration with University of Bradford (who lead the project) University of Applied Sciences Savonia Finland and University of Maribor Slovenia as well as School of Nursing & Midwifery here at UCC.

300 delegates registered from all over the world to listen to 16 excellent presentations. Most of the presentations were streamed live with a small number pre-recorded due to some speakers' bandwidth problems as a result of working from home. There were also live demonstrations on resources developed during the project for using cultural competence in simulation based education which are available to all and can be accessed and downloaded at www.sim-versity.eu. It was great to be able to disseminate these important findings and resources far and wide.

As this was a first for the school, and with no previous virtual conference experience to go by, we felt a little trepidation in the run up to the day but we could have saved ourselves the worry as it ran smoothly and seamlessly from start to finish thanks to the great technical and organising team.

Here are some comments from the delegates:

“Really enjoyed this virtual conference - great speakers, well thought out and balanced topics. Thanks to all involved, great success!”

“Well done great conference, even better than in person conference. Very thought provoking content”

Perhaps this is a new beginning for conference organisation!



Pictured above (l-r): Professor Jonathan Drennan (Project lead), Dr Elaine Lehane and Dr Vera McCarthy.

Magnet4Europe awarded €4 million from the European Union's Horizon 2020 Programme

The largest initiative to improve hospital work environments to date has officially begun, with an award of €4 million from the European Union's Horizon 2020 Programme.

The grant will support the international partnership of some of the world's leading universities led by KU Leuven and the University of Pennsylvania School of Nursing's Centre for Health Outcomes and Policy Research. The School of Nursing and Midwifery, University College Cork are leading the Irish arm of the study. The UCC research team (pictured below) includes Professor Jonathan Drennan (Project lead), Dr Elaine Lehane and Dr Vera McCarthy.

The aim of the initiative is to redesign hospital workplaces to improve the mental health and wellbeing of nurses and physicians and to

improve patient safety. This initiative began in January 2020, aligning with 2020 being the International Year of the Nurse and Midwife as designated by the World Health Organization.

Burnout, depression, and fatigue are issues faced by nurses and physicians in busy hospital settings. Patient safety depends upon vigilance, quick thinking, and intense attention to detail by health professionals which is made more difficult by stressful work settings. These issues have never been more to the fore as a consequence of the outbreak of COVID-19 and there is a need to ensure that healthcare staff are working in environments that enhance their physical and mental wellbeing.

Magnet4Europe will implement an evidence-based intervention based on the successful Magnet Recognition Programme. Studies

have shown that Magnet-recognised hospitals have lower levels of burnout among health professionals and safer patient care.

Sixty hospitals in five European countries (Ireland, Belgium, England, Germany, and Sweden) will be supported by one-to-one twinning with an experienced Magnet recognized hospital and an annual learning collaborative. A rigorous research evaluation will determine the success of the initiative.

There are currently 502 Magnet Recognized hospitals in 8 countries, with most located in the US. Only one hospital in Europe has achieved Magnet recognition. This initiative will test the feasibility and sustainability of the Magnet Model[®] for organizational redesign in the context of health care in Europe.

UCC Scientists Attract Key European Horizon 2020 Funding on Gut Health



Pictured above (l-r): Dr Gerard Clarke and Professor John F. Cryan.

APC Microbiome Ireland researchers, Dr Gerard Clarke and Professor John F. Cryan have recently been awarded key research funding under the European Commission's Horizon 2020 Research and Innovation programme to understand the role of the microbiome and gut-brain axis in irritable bowel syndrome (IBS). The researchers at APC Microbiome Ireland SFI Research Centre and Departments of Psychiatry & Neurobehavioural Science and Anatomy & Neuroscience at University College Cork are partners in the grant 'Development, diagnosis and prevention of gender-related Somatic and mental COMorbidityEs in iRRitable bowel syndrome in Europe' (**DISCOVERIE**) which is valued at €6 million overall. The project involves researchers from eight European countries and a number of European SMEs and aims to better diagnose, prevent and treat this common debilitating condition.

IBS is a very common gastrointestinal (GI) disorder characterized by abdominal pain, excess gas and diarrhoea or constipation, predominantly seen in young and middle-aged females. The experience of illness in a significant number of patients with IBS is greatly complicated by the additional presence of psychiatric symptoms such as anxiety or depression, as well as conditions such as fibromyalgia and chronic fatigue syndrome. Patients with such comorbidities often have more

treatment failure and impaired quality of life. Improving our knowledge of the underlying biology for these overlapping symptoms is the core objective of this project.

The urgency of this research is reflected in the societal impact of IBS and psychiatric comorbidities. In Europe, IBS represents a serious burden to the healthcare systems with current estimates indicating that 85 million citizens suffer from IBS and as many as 1 in 5 people in Ireland are affected. The annual societal cost for IBS is around €43 billion in Europe. It is a combination of this societal impact and a thus far unmet medical need that has driven the creation of this pioneering project in Europe in the study of IBS and its comorbidities. The DISCOVERIE consortium is distinguished by its innovative and disruptive approach to finding new solutions. This is particularly visible in the focus on age and sex/gender-related differences, and lifestyle factors that we believe will support a better diagnostic approach in clinical practice and facilitate the development of novel therapeutic options.

This grant also synergises with the complementary research programmes of Dr Clarke and Professor Cryan in precision Microbiome Ireland where their teams are heavily focused on stress-related disorders. To find out more, click [HERE](#).

New microbiome research of practical value to patients



Pictured above (l-r): Dr Marcus Claesson, Ms Rachel Fitzgerald, Ms Julia Eckenberger and Professor Fergus Shanahan, APC Microbiome SFI Research Centre and School of Microbiology, University College Cork.
(Photo: Catherine Buckley, APC Microbiome Ireland)

Two of the most important and largest microbiome studies ever undertaken in patients with chronic inflammatory bowel disease have been conducted by a team of researchers in Cork from *APC Microbiome Ireland*. The research, which also includes collaborating scientists from the UK, USA and elsewhere took two different approaches to show that patients with both Crohn's disease and ulcerative colitis have disturbances in their microbiome (the collection of bacteria living in the human gut).

The first study which has appeared in the prestigious journal *Nature Communications*, showed important changes in the microbes sampled at colonoscopy which were directly associated with inflammation in the colon.

The second study followed 700 Irish and Canadian patients over time and revealed disturbances in the microbiome associated with relapses of disease. The work published in the journal *Gut*, will open the way for doctors to be able to predict relapses of disease before patients develop symptoms.

"We are delighted that both of our research approaches showed complementary, albeit important, results which will be of benefit to patients in the future" said Dr Marcus Claesson, leader of this research at APC Microbiome Ireland, a world leading SFI Research Centre at University College Cork.

"The work is an important example of what can be achieved when clinicians and basic scientists collaborate" said Professor Fergus Shanahan, one of the researchers on the project.

Inflammatory bowel disease is comprised of two chronic inflammatory conditions, ulcerative colitis and Crohn's disease, which affects tens of thousands of patients in Ireland. While the condition can be controlled with drugs, the unpredictability of relapses is a major challenge for patients and is one of the reasons why the microbiome is so important in providing markers to predict relapse.

"While ethnicity, diet and geographical location were found to contribute to microbiota variation globally, it is the variation in microbiota composition within individuals followed over time which increases the power of microbiome markers to predict relapse. This has implications for future microbiota studies and for the development of precision medicine" added Dr Claesson.

School of Pharmacy successes under the MSCA Innovative Training Networks 2020 Call



There was considerable success for three staff members following the announcements of the successful Innovative Training Networks (ITN) awarded under the Horizon 2020 Marie Skłodowska-Curie Actions programme in late May.

These new ITNs were successful at the evaluation stage announced in early June and have now been invited to participate in preparing the grant agreements. The School of Pharmacy will be involved in establishing three new ITNs:

- **Brendan Griffin** will lead InPharma ITN (as Project Coordinator),

- **Cormac Gahan** will lead the COL-RES ITN (as Project Coordinator) and
- **Professor Cairtriona O'Driscoll** will participate in Colotan ITN (as a beneficiary).

MSCA-ITN is a very prestigious and an extremely competitive programme - 1,509 eligible proposals were submitted for this funding call with 147 receiving funded. Overall a total of six ITNs were awarded to coordinators in Ireland in 2020, so it is outstanding that 2 of these 6 will be led by staff within the School of Pharmacy, UCC.



Far left: Dr Elaine McCarthy, investigator at INFANT. **Left:** Dr Martina Hayes, Senior Lecturer in Restorative Dentistry

INFANT AND DENTISTRY RESEARCHERS AWARDED HRB FUNDING

Congratulations to Dr Elaine McCarthy and Dr Martina Hayes who have been awarded almost €500,000 in **Health Research Board (HRB) funding** under two postdoctoral training schemes.

Dr Elaine McCarthy, an investigator at **INFANT**, received €241,040 for work on an Iron Deficiency Assessment for protection of the newborn brain as part of the Applying research into Policy and Practice Fellowships. Dr McCarthy's project aims to identify the women and infants at the highest risk of Iron deficiency during pregnancy and early childhood - one of the leading causes of diminished neurological developmental potential worldwide.

Dr Martina Hayes, a Senior Lecturer in Restorative Dentistry, was awarded €236,183 for research on Oral Health in Adults with Cystic Fibrosis under the Clinician Scientist Fellowships scheme. This project seeks to comprehensively research the oral health of people with Cystic Fibrosis (PWCF) over the next three years to establish whether they have higher rates of oral diseases such as dental decay or gum disease.

The awards were made under two postdoctoral training schemes, Applying Research into Policy and Practice Fellowships, and Clinician Scientist Fellowships. The research projects are two of twelve to receive a share of a €3.7 million investment in new health research fellowships.

APC Microbiome Ireland research published in Nature Medicine



Pictured above: The study scientists with members of the Cork Traveller Visibility Group from left to right: Biddy McDonagh, David Keohane, Gene O'Donoghue, Nora Cash, Liz McGrath, Fergus Shanahan, Caroline Barnard, Michael Molloy, and Breda O'Donoghue.

Investigators at **APC Microbiome Ireland** were stunned by the findings of the first microbiome study of Irish Travellers which challenges the concept of a 'normal' or 'healthy' microbiome and asks: "what is a normal or desirable microbiome in an ethnically diverse society?" The findings have global implications and are published in the prestigious journal **Nature Medicine**.

The microbiome is the collective genetic material of microorganisms (bacteria, yeasts and viruses) living in and on the human body, and is known to be linked with risk or protection from developing several chronic inflammatory diseases. A modern way of life increases the risk of chronic diseases, in part by influencing the microbiome. Until now, studies of the influence of modernization on the microbiome relied on transcontinental comparisons of different societies, but the story of the Irish Travellers and the changes imposed on their lives provides important new insights. Moreover, the study raises wider public health concerns for ethnic minorities, including migrants, who are pressured to change their

culture and ways of life, which can have unanticipated health consequences.

Travellers have a gut microbiome which differs strikingly from that of the non-traveller settled community. Whereas the settled or non-traveller Irish have an industrialized-type of microbiome with a relatively increased risk of chronic disease, most of the travellers retain an ancient or non-industrialized type of microbiome which may protect from many chronic inflammatory disorders.

This microbiome was strikingly more similar to people living in non-industrialized countries than to the settled Irish. Moreover, the greater the degree to which the Traveller lifestyle was adapted to that of the settled community, the more their microbiome changed from the non-industrialized type to the industrialized type associated with disease. Ethnic minorities are known to have distinct microbiomes, but the Irish Traveller study is particularly informative because it is not confounded by genetic and geographic factors.



Professor John Cryan profiled in 'Science'

The article 'Meet the 'psychobiome': the gut bacteria that may alter how you think, feel, and act' by Professor John F. Cryan, Chair of the Dept. of Anatomy & Neuroscience was recently profiled in by Elizabeth Pennisi in the journal 'Science'.

'Gut bacteria are key to proper immune system development and maintenance, and studies show that having the wrong mix of microbes can derail that process and promote inflammation'. 'Animal studies by Cryan and others have bolstered the idea that gut microbes can influence the brain. Rats and mice given fecal transplants from people with Parkinson's, schizophrenia, autism, or depression often develop the rodent equivalents of those problems. Conversely, giving those animals fecal transplants from healthy people sometimes relieves their symptoms. The presence or absence of certain microbes in young mice affects how the mice respond to stress as adults, and other mouse studies have pointed to a role for microbes in the development of the nervous system':

www.sciencemag.org/news/2020/05/meet-psychobiome-gut-bacteria-may-alter-how-you-think-feel-and-act

This is the second entry for the Cryan lab in Science this year following their paper in November on "Microbiota and the Social Brain":

<https://science.sciencemag.org/content/366/6465/eaar2016/tab-article-info>

2021 Lister Institute Research Prizes Open for Applications

The 2021 Lister Institute Research Prizes are now open. Application forms and instructions on how to apply are available [HERE](#) and will be accessible until the closing date which is Friday 25 September 2020.

Applicants may check their eligibility [HERE](#).

The Lister Institute's competitive research prizes give scientists the opportunity to develop their potential through flexible funding over a five-year period. Prizes are awarded to the most promising early career researchers undertaking high quality innovative research in any area of biomedical science that will lead to advances in preventive medicine.

The Lister Institute's research prizes are awarded as lump sums of £250,000 which should be spent within a five-year period. The money must be used in support of the applicants' research but can be used for equipment, travel, consumables or the salaries of post-doctoral workers, technicians or PhD students etc.

In 2020, four Research Prizes were awarded for commencement in

October 2020 and it is currently intended that there will be at least five Prizes in 2021. The research topic is of the applicants' own choosing and can be in any of the biological, medical or clinical disciplines or in related areas such as chemistry. The only scientific restriction is that the research should lead to greater understanding in or have implications for the field of preventive medicine.

A summary of the Terms and Conditions, downloadable application forms and 'how to apply' details are also available from the Institute's website: www.lister-institute.org.uk

Any queries should be directed to the Institute's Administrator:

Email: secretary@lister-institute.org.uk

Completed forms must be returned no later than **Friday 25 September 2020**





MSc Clinical Trials

The MSc Clinical Trials at University College Cork is an online course designed to give a competitive advantage for those wishing to pursue a career in clinical trials in the pharmaceutical, medical device or academic sectors. It is the first such course in Ireland, providing a pathway for progression from Postgraduate Certificate Clinical Trials to Postgraduate Diploma Clinical Trials and ultimately a Masters in Clinical Trials. It is a wholly online, part-time course designed for the working professional. Students can expect to dedicate a minimum of 20 hours per week.

Clinical trials is a rapidly expanding discipline with many new job opportunities in the healthcare and pharmaceutical sectors, such as data manager, clinical research associate, clinical research nurse, project manager, trial monitor, regulatory affairs associate, pharmacovigilance associate, trial manager and many more. Join us on our exciting journey promoting clinical trials and patient focused research to improve the health of our citizens.

If you'd like more information, follow [this link](#) or send an email to clinicaltrials@ucc.ie

Postgraduate Studies in Dementia

This is an exciting, flexible, interdisciplinary programme offered by the Centre for Gerontology and Dementia, School of Medicine, UCC. The programme covers the key topics in dementia care, and is delivered by a mix of lecturers from UCC and also guest clinician-lecturers, including the course coordinator who is the Clinical Lead for the National Dementia Office, a highly experienced clinician, researcher and policy influencer. The programme was shortlisted for "Best New Course" by Grad Ireland in 2019.

Applications are currently being invited for all streams of study on the programme, and courses for the 2020/21 academic year will commence in September 2020.

For further information visit: www.ucc.ie/en/ckx21/ or email Dr Suzanne Timmons, Programme Director s.timmons@ucc.ie or Dr Siobhán Fox, Lecturer s.fox@ucc.ie



Above: Ann Twomey, Advocate for carers of people living with dementia and Director of The Alzheimer Society of Ireland, delivered a powerful guest lecture to students on the Postgraduate Studies in Dementia Programme.



MSc in Human Anatomy open on PAC

The MSc in Human Anatomy is now open on PAC and accepting applications for 2020-2021 www.ucc.ie/en/ckx52/

This is a one year, full-time masters in Human Anatomy with a focus on dissection of the whole body. It also includes interesting modules on embryology, anatomy pedagogy, radiology and neuroanatomy. The MSc has its third cohort of students currently working on their research projects including dissection-, lab- and education-based research. Contact Dr Siobhan O'Mahony SOMahony@ucc.ie or Mutahira Lone m.lone@ucc.ie for more information.

Pictured left: MSc Human Anatomy team: (l-r) Dr Siobhain O'Mahony (Programme Director) and Dr Mutahira Lone (Programme Co-ordinator).