Welcome to the School of Medicine’s latest research newsletter - keeping you informed about upcoming events, opportunities and news. This will be our final newsletter for 2023, however, we will be back to share more with you in 2024. If you have content you would like to see included in future editions, we encourage you to contact medicine.research@ucd.ie.

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Associate Dean for Research Innovation & Impact
UCD School of Medicine

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Deputy Associate Dean for Research Innovation & Impact
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Upcoming Events

Open Research for Early Career Researchers

The UK Research Integrity Office is hosting a webinar on 6 December from 10.00-11.00. Open Research for Early Career Researchers. The webinar will explore how researchers and institutions view open research, what motivates them to practice open research and the challenges they face. The target audience is researchers who are within 8 years of their PhD or 6 years of their first academic appointment. Register here.

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UCD School of Medicine Graduate Research Symposium

The School is holding a Graduate Research Symposium on Tuesday 19 December, 12:00 - 17:30 in Moore Auditorium, O’Brien Centre for Science. We invite all School of Medicine staff to attend the event and ask that you encourage your research students to participate.

All MSc, PhD, MCh and MD students are invited to submit an abstract for presentation of their research in either poster format or as a short oral presentation. Prizes will be awarded for the best presentations in each category. If you elect not to submit an abstract, please do still register to attend and come along on the day.

Please register by submitting your abstract or intention to attend here.

Please contact medicine.research@ucd for more information.

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News

SoM Translational Medicine Seed Fund Awardees
In order to encourage collaboration between scientists and clinicians €113,000 of funding has been allocated, after a competitive application process, to the following 11 projects:

**Dr Carol Aherne & Dr Seamus Hussey.**
Establishing patient-derived colonoids as a model of mucosal healing and a predictor of treatment response in paediatric ulcerative colitis.

**Dr Darrell Andrews, Prof Yvonne O’Meara, Dr Denise Sadlier & Dr Lynn Redahan.**
Investigating the mechanisms of failed inflammation resolution in chronic kidney disease (CKD).

**Dr Eoin Brennan & Mr Martin O’Donohoe.**
Transcriptome Analysis of Non-Coding Sequences in Patient-derived Calcified Atherosclerotic Plaque Smooth Muscle Cells.

**Dr Joanne Byrne, Ms Gurvin Saini, Prof Paddy Mallon, Prof Eoin Feeney & Assoc Prof Aoife Cotter.**
Development of a multiplex serological assay for mpox and exploration of the demographic, clinical and immunological profile following mpox infection or vaccination.

**Dr Stephen Thorpe, Dr Austin Duffy, Prof Walter Kolch, Prof Boris Kholodenko & Assoc Prof Oleksii Rukhlenko.**
Refining treatment strategies for patients with metastatic pancreatic cancer.

**Dr Alfonso Rodriguez-Herrera & Assoc Prof Neil Docherty.**
A translational proof-of-concept study of the mechanistic basis and potential therapeutic value of enhancing urinary excretion of gluten immunogenic peptides (GIP) in Celiac Disease.

**Dr Christopher Shannon & Prof Donal O’Shea.**
Monitoring hepatic mitochondrial adaptation to a very low-calorie diet in individuals with obesity.

**Dr David Gomez & Dr Shirley Potter.**
Exploration of new approaches to characterise the molecular basis of human malignant melanoma.

**Dr Eoin Cummins, Prof Ronan Cahill & Dr Stephen Thorpe.**
The predictive value of spatial multiomic analysis of the tumor microenvironment in colorectal cancer.

**Prof Glen Doherty & Prof Cormac Taylor.**
To investigate glycolytic complexes in patients living with inflammatory bowel diseases.

**Assoc Prof John Baugh, Assoc Prof Katherine O’Reilly, Dr Sarah Cullivan, Assoc Prof Brian McCullagh, Prof Sean Gaine & Prof Seamus Fanning.**
Role of gut microbiome and associated metabolites in development of Pulmonary Hypertension.

Congratulations to Prof Geraldine McCarthy for being recognised by the American College of Rheumatology with the designation of Master award. Further information is available [here](#).
Congratulations to Prof Catherine Godson who received an award from the American Society of Nephrology at their annual meeting. On Nov 3, Prof Godson delivered the Brenner Endowed Lectureship focusing on research on Diabetic Kidney Disease. Read more here.

Congratulations to Dr Christine Kelly who has been awarded €1.2m in funding from the Health Research Board’s Clinical Scientist Fellowship scheme. Dr Kelly’s project will examine how to improve detection of new infectious threats in people who have recently travelled. Further information is available here.

Two researchers from the School of Medicine have been awarded funding via the IRC’s Enterprise Partnership Scheme & Employment Based Postgraduate Programme. Dr Niamh McCullagh has been awarded for her project ‘Searching for Missing Homicide Victims: Developing a Data Driven Model’. Dr Aidan O’Dowling’s award will fund his project ‘Multiparametric analysis of the pancreatic cancer microenvironment in response to neoadjuvant therapy.’ Find out more here.

The AI Innovation of the Year prize has been awarded at the Public Sector Digital Transformation Awards to a team which includes two School of Medicine researchers, Prof Mary Higgins and Prof Fionnuala Ní Ainle. A diagnostic tool to identify preeclampsia is being piloted in the National Maternity Hospital, the Rotunda Maternity Hospital and the Coombe Hospital. Find out more here.

Professor Jonathan Dodd, Full Clinical Professor at UCD School of Medicine, is the co-senior author of a new study published in Diabetes Care on the effectiveness and safety of cardiac CT in symptomatic patients with diabetes, initially referred for invasive coronary angiography. The study found cardiac CT to be as effective as and safer than invasive coronary angiography in >3500 participants at 26 sites in 16 countries. Read more here.
14 November marked World Diabetes Day. To celebrate, we showcased some of the terrific research collaborations taking place between UCD DCRC and other institutions. Find out more here.

The European Cancer Imaging Initiative has launched the Cancer Image Europe platform which links 36 datasets of images of 9 cancer types (breast, colon, lung, prostate, rectum, liver, glioma, neuroblastoma, glioblastoma). The platform includes over 200,000 images from approximately 20,000 individuals. Find out more here.

Congratulations to the following PhD students who have recently defended their theses successfully at their vivas.

**Charlene Bennett**  
Title: Genetic investigations provide insights into Hepatitis E virus and other potential foodborne viral pathogens in Ireland (2016-2019)  
Supervisor: Dr Suzie Coughlan & Dr Joanne O’Gorman

**Stephanie Bollard**  
Title: Investigation of Extracellular Vesicles Melanoma: Insights into Biomarkers from the Tumour Microenvironment and Circulation  
Supervisor: Dr Shirley Potter & Professor Amanda McCann

**Julie Drieu La Rochelle**  
Title: Role of p21-activated kinase in Tumorigenesis and Inflammation  
Supervisor: Professor Ulla Knaus

**Grace Kenny**  
Title: Host immune responses to SARS-CoV-2  
Supervisor: Professor Patrick Mallon

**Sarah Kierans**  
Title: Investigations into the non-transcriptional regulation of glycolysis by hypoxia  
Supervisor: Professor Cormac Taylor

**Laura Maugeri**  
Title: Investigating the role of MYCN in alternate splicing in MYCN-amplified neuroblastoma  
Supervisor: Dr Melinda Halasz
Catherine Mahoney
Title: Discovering Genomic Regions Enriched for De Novo Recombination in Autism Spectrum Disorder
Supervisor: Professor Denis Shields & Dr Michael Salter-Townshend

Mykyta Malkov
Title: Non-canonical regulation of HIF-1α by TNF-α and IL-1β in intestinal epithelial cells
Supervisor: Professor Cormac Taylor

Maurice O’Mara
Title: Role of NADPH oxidase DUOX2 in cytoskeletal dynamics and host defence
Supervisor: Professor Ulla Knaus

Grant Advisory Committee
If you are planning on writing and submitting a grant proposal, we encourage you to avail of the support provided by the Grant Advisory Committee at UCD School of Medicine. The Committee will assess grant applications at an early-stage and provide independent, constructive advice on scientific merit and quality. This review process is designed to complement existing UCD Research supports (https://www.ucd.ie/research/) and as always, all applicants are encouraged to engage fully with UCD Research as well as the respective funding agencies they are applying to. We are delighted that several colleagues who have availed of this review process have been successful in their grant applications. More information about the process can be found here.

Key Dates for Research Student Supervisors
The School of Medicine conferral ceremony will take place on 6 December in UCD O’Reilly Hall. PhD, MD, and MSc Research Degrees will be awarded.

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Centre Highlight
The UCD Centre for Experimental Pathogen Host Research (CEPHR) is located in three hubs in Belfield, St Vincent’s University Hospital and Mater Misericordiae University Hospital. The focus of the Centre is on chronic viral infections. CEPHR comprises clinical, translational, statistical and biomedical researchers with expertise in diagnostic virology, pathogen discovery, HIV infection, viral hepatitis infection and long-term consequences of long-term viral infections including co-morbidities. For further information please see here.

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**Research Q&A**

In our Research Q&A’s, we probe our School’s researchers to find out about their research topics and areas, insights and thoughts. Lauren O’Connell’s PhD focused on mucosal defense in the gastrointestinal tract. Read more here.

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**Opportunities**

Marie Skłodowska-Curie Actions Staff Exchanges call is open until 28 February 2024. Funding is available for staff exchange projects of up to 4 years. The aim is to develop collaborative projects between different organisations in the academic and non-academic sectors. Further details are available here.

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Following a highly successful online seminar series and two collaborative symposiums between the Quantitative Biosciences Institute (QBI) of UCSF and Systems Biology Ireland at University College Dublin,
the two institutes are building the foundations of future research collaboration by launching a call for joint research grants. Interested in applying?

They are soliciting proposals in network biology and drug/drug target discovery. They seek high quality, ground-breaking research that has a strong innovative network biology and/or drug discovery component. Projects must involve strong collaborations between researchers at QBI and UCD that will pump prime joint applications for larger scale external funding later on, such as NIH/NCI – CRUK Grand Challenges, EU grants, SFI-US-Ireland R&D Programme, and others.

They have secured a total of $150K for the initiative and anticipate awarding 2-3 grants.

Application Deadline: Monday 18 December, 2023
Learn More and Apply: https://qbi.ucsf.edu/QBI-SBI-RFA-2023

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The Health Research Board has two joint transnational calls open.

Applicants must apply as part of a transnational consortium. Researchers from Ireland can apply as coordinators or partners.

(1) 'Use of digital technologies in neurodegenerative disease research and clinical practice'
The aim of this call is to establish working groups to assess the current and future impact of digital technologies on research and care of neurodegenerative diseases. The deadline for applications is 12 December 2023. Find out more here.

(2) 'Modulation of brain aging through nutrition and healthy lifestyle'
The aim of this call is to increase knowledge on promoting changes in lifestyle in pre-symptomatic and predementia stages. The deadline for applications is 15 January 2024. Find out more here.