

# **Functional Cancer Genomics and Precision Oncology**

An online workshop hosted by Prof Adrian Bracken (Trinity College Dublin) and Prof Walter Kolch (University College Dublin)

Thursday, 26 May 2022 10am – 2pm

**Online Event** 



Free registration on Eventbrite Search 'functional cancer genomics'

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The All-Island Cancer Research Institute online event will explore:

@AICRIproject

- The current landscape in Functional Cancer Genomics in Ireland
- How can we harness the power of these Functional Genomics efforts to launch genomics-based cancer clinical trials on the island of Ireland

**IRISH RESEARCH COUNCIL** 

Agenda

### 10.00-10:25 Welcome and Introduction to AICRI and Workshop

Prof Adrian Bracken (TCD) (Chair) Dr Colm Henry, Chief Clinical Officer (HSE) Prof William Gallagher (UCD, AICRI Co-Lead)

Dr Robert O'Connor (Irish Cancer Society): A Charity Perspective Dr Alan Pearson (Patient Representative)

### 10:25-11:45 Theme 1: Functional Cancer Genomics

*Chairs:* Prof Adrian Bracken (TCD) and Dr Colm Ryan (UCD)

### Speakers:

Prof Adrian Bracken (TCD): Harnessing custom CRISPR libraries to identify functional

dependencies in the coding and non-coding genomes of cancer

**Dr Colm Ryan (UCD):** Computational approaches to understand and target mutations in cancer

**Dr Gerard Brien (TCD)**: Harnessing Functional Genomics to Develop targeted therapies for Paediatric cancers

**Dr Rory Johnson (UCD):** Genomics-driven RNA therapeutics in oncology

**Dr Eric Conway (TCD):** Single-Cell Epigenomics to Develop New Strategies to treat Heterogenous Cancers

**Dr Tríona Ní Chonghaile (RCSI):** Targeted therapeutics and PROTACS for cell death initiation

Prof Darran O'Connor (RCSI): Targeting transcription in breast cancer

**Dr Simon McDade (QUB)**: Functional genomics to improve efficacy of standard of care **Prof Aedin Culhane (UL):** Developing data science and bioinformatics platforms that empower clinical cancer research and patient care

Dr Yaser Atlasi (QUB): Elucidating the role of regulatory elements in cancer

Prof Corrado Santocanale (NUIG): Blocking DNA synthesis before it begins: insights

into CDC7 kinase targeting drugs using functional genomics approaches

Dr James Brown (UL): Essential genes as cancer targets

## Q&A

11:45-13:00 Theme 2: Precision Oncology

Chairs: Prof Walter Kolch (UCD) and Prof Maeve Lowery (TSJCI)

## Speakers:

Prof Walter Kolch (UCD): Digital Twins for Precision Oncology

**Prof Maeve Lowery (TSJCI)**: Adaptive clinical trial designs to facilitate precision oncology

**Prof Roisin Connolly (UCC):** Neoadjuvant Clinical Trials & Precision Oncology **Prof Jonathan Bond (UCD):** Precision Medicine for Childhood Cancer

**Prof Karen Cadoo (TSJCI):** Building a national inherited cancer genetics research infrastructure

**Dr Nina Orfali (TSJCI):** Acute Myeloid Leukaemia - The More We Know, The More Complicated it Gets!

**Dr Grainne O'Kane (SJH):** A comprehensive molecular profiling programme to dictate subtypes and biomarkers

**Dr Nick Orr (QUB)**: Using functional genomics to illuminate mechanisms of genetic susceptibility to cancer

**Prof Leonie Young (RCSI):** Longitudinal genomic profiling as a tool to uncover new actionable targets in breast cancer brain metastasis

**Dr Jarushka Naidoo (RCSI/Beaumont):** Investigator initiated clinical trials in oncogene addicted subsets of cancer

Dr Nicola Miller (NUIG): Translating miRNA signatures, real world experience

	Q&A
13:00-13:20	LUNCH

### 13:20-14:00 Next Steps and Opportunities for Collaboration

Chairs: Prof Adrian Bracken (TCD) and Prof Walter Kolch (UCD)

## **General Open Discussion**

### 13:50-14:00 Summary/wrap up and Close

### Registration

Register for this free event here: <u>https://www.eventbrite.ie/e/functional-cancer-genomics-and-precision-oncology-</u> workshop-online-event-tickets-334480790047