

HOW TO ENROL

- **UCD Graduate Students:**

Contact Communications and Education team at Conway Directorate with completed registration form, available at www.ucd.ie/conway

- **Non UCD Graduate Students:**

Contact Communications and Education team at Conway Directorate who will advise as to availability of places.



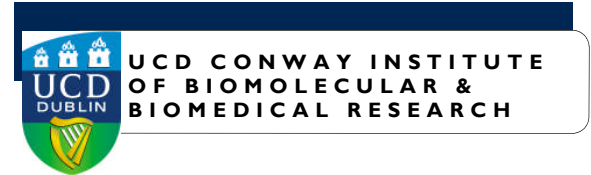
At UCD Conway Institute, we are committed not only to the creation of new knowledge and advances in biomolecular and biomedical research, but also to the education and training of future generations of scientists. In line with international best practice, our postgraduate education programme has been developed in response to the changes in knowledge and skills demanded of graduates in a rapidly expanding world market.

UCD Conway Institute aims to provide students with the core skills that are essential for success in laboratory-based graduate research programmes and transferable to further graduate research and training or to employment.



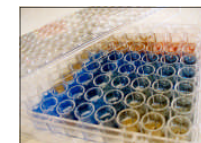
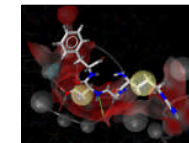
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CNWX 40090

INTRODUCTION
TO 'OMIC' &
ADVANCED
IMAGING
TECHNOLOGIES



WWW.UCD.IE/CONWAY

CNWX 40090: INTRODUCTION TO 'OMIC' & AIT



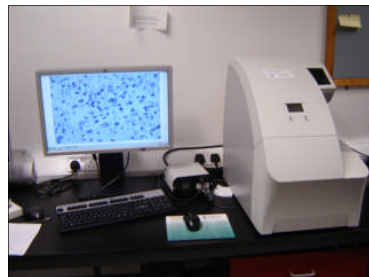
Module

Overview:

This course is designed to familiarise students with the principles, practice and application of the rapidly developing 'omic' and imaging technologies.

The course will comprise 10 seminar-style sessions covering:

- Bioinformatics
- Proteomics
- Genomics and transcriptomics
- Imaging—from cell to person



What will I learn?

On completion of the course the students should:

Bioinformatics:

- Understand what Bioinformatics is – and be familiar with sequence formats, databases and associated query tools

Proteomics:

- Understand the use of instruments and methods in proteomic analysis
- Be aware of the bioinformatic approaches and computer software used for proteomic data analysis

Genomics:

- Be familiar with the principals of Genomics, the construction of genome maps, genome sequencing and genomic variation
- Understand the application of genomics to trait and disease identification, diagnostics and personalised medicine

Transcriptomics:

- Have a general understanding of Transcriptomics, regulation of the transcriptome and the use of microarray technologies, including their advantages and disadvantages

Advanced Imaging technologies:

- Understand the innovation and advances in current imaging technologies and the relevance and importance of the basic principles of imaging to the most widely used technologies for *in vitro*, *in vivo* and diagnostic research

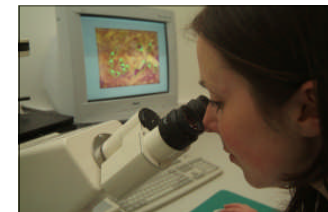
Practical Information:

ECTS Credits: 5

Timing: 10x3 hours in Semester 2

Assessment: Exam

Grade: A, B, C, D, E, F



UCD CONWAY
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BIOMEDICAL RESEARCH

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