

## DRUG DISCOVERY AND DEVELOPMENT (MSc/PgDip/PgCert)

57B220B1/61B220VX/62B220VZ

*Duration:* 12 months full-time or 24 months part time (MSc); 9 months full-time or 18 months part-time (PgDip).

*Content:* The programme of taught courses will comprise lectures, tutorials, practical classes and demonstrations. The curriculum includes biochemical and molecular aspects of drug action; drug transport, metabolism and excretion; toxicology; pharmacokinetics; computing studies; industrial aspects of drug development; therapeutic drug monitoring; the influence of disease on drug handling; drug-drug interactions; the design and conduct of volunteer and clinical trials; monitoring drug safety and an understanding of drug regulation. In addition, the programme includes Bio-Business which aims to bring the ideas and concepts of the commercialisation of scientific ideas to the student.

Candidates shall be required to attend the following designated programme of courses:

### **FULL TIME ROUTE**

#### **Stage 1**

MT5010 Basic Skills Induction (0 credit points)  
MT5029 Toxicology (15 credit points)  
BT5013 Small Molecule Drug Discovery (15 credit points)  
BT5015 Introduction to Commercialisation and Bio-Business (15 credit points)

*Plus **one** of the following electives*

MB5025 Molecular Genetics (15 credit points)  
*Or*  
MT5024 Molecular Pharmacology (15 credit points)  
*Or*  
PU5017 Applied Statistics (15 credit points)

#### **Stage 2**

BT5508 Advanced Bio-Business and the Commercialisation of Bioscience Research (15 credit points)  
BT5509 Biologic Drug Discovery (15 credit points)  
MT5518 Pharmacokinetics (15 credit points)  
MT5515 Basic Research Methods (15 credit points)

#### **Stage 3**

All students must take **one** of the following:

**MB5904 Masters Research Project (Laboratory) (60 credit points)**

**OR**

**PU5922 Masters Research Project (60 credit points)**

### **PART TIME ROUTE**

#### **Year 1**

The following courses are required for completion of the programme, but not all courses will be taken in year 1. Students can choose between 30 and 120 credits from the following courses, but not more than 60 credits in a half session.

MT5010 Basic Skills Induction (0 credit points)  
  
MT5029 Toxicology (15 credit points)  
MT5518 Pharmacokinetics (15 credit points)  
MT5515 Basic Research Methods (15 credit points)

Plus **one** of the following electives

MB5025 Molecular Genetics (15 credit points)

Or

MT5024 Molecular Pharmacology (15 credit points)

Or

PU5017 Applied Statistics (15 credit points)

## Year 2

Students must take the following:

BT5013 Small Molecule Drug Discovery (15 credit points)

BT5015 Introduction to Commercialisation and Bio-Business (15 credit points)

BT5508 Advanced Bio-Business and the Commercialisation of Bioscience Research (15 credit points)

BT5509 Biologic Drug Discovery (15 credit points)

All students must take **one** of the following:

MB5904 Masters Research Project (Laboratory) (60 credit points)

OR

PU5922 Masters Research Project (60 credit points)

*Assessment:* By practical work, by written essays, written examinations and by oral presentations, or by a combination of these, as prescribed for each course. The project will be assessed on the basis of performance, written thesis, and oral presentation. Candidates must pass all courses at an appropriate standard for the award of the MSc degree.