

School of Chemistry

Aims and Objectives: Session 2022-2023

Module CH4612: Blockbuster Pharmaceuticals

Duration: 20 hours

Lecturers: Professor D. O'Hagan*

+ three guests from the pharmaceuticals industry

(*Module Convenor)

Aims: The module will highlight to students some key pharmaceutical products, which have had a major impact in treating medical disorders and infectious diseases. For selected examples, it will focus on mode of action of the drugs and their chemical synthesis. Where known, commercial synthesis routes will be outlined. The course will also have three guest speakers who will give case studies from the pharmaceutical industry.

Objectives:

1. Examples will be taken from major drugs which have impacted on the treatment of infectious diseases eg.

Anti HIV - AZT, Indinavir

Antifungals - fluconazole and voriconazole,

Swine and Avian flu viruses - tamiflu

Antibiotics - penicillins and linezolid,

2. The chemical synthesis of these drugs will be outlined in individual cases and where known their modes of actions will be highlighted.