Module Specification

Module Title	Translational Pharmacology and Innovative Therapeutics	Module Code	BMD375

Credit Value	15	Level	6	Mode of Delivery	On Campus	Semester A

Pre-requisite modules	Co-requisite modules	Overlapping modules

1) Content Description

Provide a description of the module, as it will appear in the Module Directory and on the Student Information System (approx. 70-80 words).

Students will be exposed to innovative therapeutics in areas including vaccines, oncology, cardiovascular, metabolic diseases, pain and neuroscience, inflammation and immunology as well as rare disorders.

Students will also gain awareness into challenges that the pharmaceutical industries face. Lectures will cover topics such as drug shortages, targeted/personalised drugs, use of biomarkers, clinical trial design, drug safety, risk/benefit assessments, collaboration between patient, academia, industry and the regulatory community, international collaborations, policy and bioethics, novel tools for scientific/clinical communication, sustainability of innovation/financial models of product development/pricing, marketing and licencing.

Introductory lectures will be followed by lectures in specialized areas of the subject given by experts in both academia and industry. In addition to formal lectures and interactive seminars, the course will provide tutorials with opportunities to critically-evaluate research papers. We will offer practical workshop sessions to reinforce the lectures.

2) Module Aims

Specify the aims of the module, i.e. the broad educational purposes for offering this module.

This module will aim to provide knowledge into the processes involved in the translation of scientific discoveries through basic research into their eventual translation into novel therapeutics.

Students will be also be exposed to issues faced by the pharmaceutical industry in the use of high-throughput screening technologies, evaluation of efficacy in animals and man and clinical trials.

3) Learning Outcomes

Identify the learning outcomes for this module, i.e. knowledge, skills and attributes to be developed through completion of this module. Outcomes should be referenced to the relevant QAA benchmark statements and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008). The SEEC Credit Level Descriptors for Further and Higher Education 2003 and Queen Mary Statement of Graduate Attributes should also be used as a guiding framework for curriculum design.

Academic Content:

A1	Gain a critical understanding of the process involved in translation of basic research into innovative therapeutics
A2	Gain knowledge into the new discoveries and translational studies leading to novel therapeutics
A3	Understand the challenges faced by the pharmaceutical industry in the use of high-throughput screening technologies, evaluation of efficacy in animals and man and clinical trials.
A4	Use a specific example of a current drug used to treat a common disease to evaluate the efficiency of the translational process

Disciplinary skills - able to:	
B1	Critically evaluate published research studies
B2	Conduct laboratory experiments safely with care and precision
B3	Write scientific reports and present scientific data
B4	Demonstrate the skills of logical and critical evaluation of scientific data, including the methods by which the data were obtained, the statistical analysis used and the inferences and conclusions drawn

Attributes:	
C1	Have the intellectual curiosity to learn continuously from diverse sources of information
C2	Be able to explain complex scientific concepts clearly and logically
C3	Make judgements based on evidence
C4	Effective time management and independent learning

4) Reading List

Provide an indicative reading list for the module. This should include key texts and/or journals but should not be an exhaustive list of materials.

Rang & Dale's Pharmacology: with STUDENT CONSULT Online Access by Humphrey P. Rang, Maureen M. Dale, James M. Ritter and R. J. Flower , Publisher: Churchill Livingstone; 7th Revised edition edition (25 Mar 2011), ISBN-10: 070203471

5) Teaching and Learning Profile

Provide details of the method of delivery (lectures, seminars, fieldwork, practical classes, etc.) used to enable the achievement of learning outcomes and an indicative number of hours for each activity to give an overall picture of the workload a student taking the module would be expected to undertake. This information will form the Key Information Set for each undergraduate programme and will be used to populate the KIS widget found on the QMUL programme information pages. More information can be found online about KIS. You may also wish to refer to the QAA guidance on contact hours when completing this section.

Activity Type	KIS Category	Time Spent (in hours)
Lecture	Scheduled	22
Tutorial	Scheduled	4
Seminar	Scheduled	8
Guided independent study	Independent	116
Total		150

Specify the total module notional study hours. This should be a total of the hours given for each activity. The notional study hours for each academic credit point is 10. A 15 credit point module therefore represents 150 notional study hours.

Activity Type	Total Time Spent (in hours)	Percentage of Time Spent
Scheduled learning and teaching	34	23
Placement		
Independent Study	116	77
Total	150	100

Use the information provided in the box above to specify the total time spent and the percentage time spent in each category of teaching and learning activity.

6) Assessment Profile

Provide details of the assessment methods used to assess the achievement of learning outcomes.

Description of Assessment	Assessment Type	KIS Category	Duration/Length	Percentage Weighting	Final element of assessment	Qualifying Mark
Examination	Written Exam	Written	3 hours	80%	Yes	
Coursework	Report	Coursework		20%	No	

Final element of assessment: The assessment that takes place last. There should normally be only one element of assessment marked as final unless two assessment or submission dates occur on the same day.

Qualifying mark: A specified minimum mark that must be obtained in one or more elements of assessment in order to pass a module. This is in addition to, and distinct from, the requirement to achieve a pass in the module mark to pass the module.

Reassessment

Provide details of the reassessment methods used, specifying whether reassessment is either standard reassessment or synoptic reassessment.

○ Standard Reassessment ◉ Synoptic Reassessment

Synoptic reassessment details (if you have indicated synoptic reassessment above, please give details)		
Brief Description of Assessment	Assessment Type	Duration/Length of Examination/ Coursework
Synoptic written examination of module content	Written exam	3 Hours