Analysis, Structure and Function of Therapeutic Agents

Module Information

2022.01, Approved

Summary Information

Module Code	7102PHASCI
Formal Module Title	Analysis, Structure and Function of Therapeutic Agents
Owning School	Pharmacy & Biomolecular Sciences
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	16
Practical	15
Workshop	10

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	To provide students with knowledge and skills to apply analytical chemistry to the characterisation of pharmaceutical materials, and to predict the effect of functional group chemistry on the structure and properties of relevant molecules.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate expertise in applying specialised analytical techniques to determine the identity and purity of active pharmaceutical molecules.
MLO2	2	Display mastery in predicting the property and the behaviour of active pharmaceutical molecules from structural information.

Module Content

Outline Syllabus	Advanced analytical chemistryQuality controlFunctional groups / reactivity / metabolismPolarity and ionisationHydrophilicity / lipophilicityPurification methodsMolecular shape / bioisosterismInteractions with metal ions and proteinsBiopharmaceutical moleculesBasic QSAR
Module Overview	This module will provide you with the knowledge and skills to apply analytical chemistry to the characterisation of pharmaceutical ingredients and predict their behaviour from their chemical structure.
Additional Information	Practical sessions will involve analysis of various APIs to enable assay capability and substance identification skills. Laboratory sessions will enable to reinforce practical skills. Exam will assess students understanding of structure-activity/structure-function of API-relevant molecules

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Practice	Practical Skills	40	0	MLO1
Centralised Exam	Exam	60	2	MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Simon Brandt	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings