Module Specification

Module Title	Repair and Regeneration in the Nervous System Module Code BMD361						
Credit Value	15	Level	6	Mode of Delivery	On Campus]	Semester A
Pre-requisite	modules	i	Co-req	uisite modules	Overlapping mod	dules	
Cellular and Molecular Neuroscience, Systems Neuroscience							

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).

This module focuses on response of the nervous system to injury focusing on the peripheral nervous system and spinal cord. Detailed organisation of the peripheral nervous system, spinal cord including pathways and relevant higher brain structures will be covered. Pathological mechanisms and plasticity of the system will be examined. Topics will be covered in the context of experimental studies to develop understanding of current research strategies in the laboratory and clinic aiming to lessen effects of such injuries and facilitate neural regeneration and functional recovery.

2) Module Aims

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

This module aims to give students an advanced understanding of the neuroanatomical structure of key components of the peripheral and central nervous systems often involved in injuries. Study of the effect of damage will allow students to gain insight into the basic mechanisms involved and how system adaptation occurs in peripheral and central injury contexts. Students will develop a critical appreciation of research literature and explore the clinical and translational aspects of current research involving injury and plasticity.

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 <u>QAA benchmark statements</u> and the <u>Framework for Higher Education Qualifications in England</u>, <u>Wales and Northern Ireland (2008)</u>. The <u>SEEC</u> <u>Credit Level Descriptors for Further and Higher Education 2003</u> and <u>Queen Mary Statement of Graduate</u> <u>Attributes</u> should also be used as a guiding framework for curriculum design.

Academic Content:

A1	Critique issues of the neurobiology of neuronal injury and plasticity showing a coherent and detailed knowledge of the subject
A2	Compare and contrast mechanisms of plasticity between the peripheral and central nervous systems
A3	Show critical awareness of scientific research methods and strategies used to study nervous system injury and its repair
A4	Demonstrate an appreciation for the clinical and translational application of peripheral nerve and spinal cord injury

Disciplinary skills - able to:				
B1	Integrate information from a variety of sources including primary research articles to construct a coherent argument			
B2	Analyse and evaluate different models used to study the effects of nervous system injury and its repair			
B3	Critically appraise and interpret scientific findings from the literature			

Attributes:				
C1	Participate constructively as a member of a group/team and participate in scientific discussions			
C2	Communicate effectively by written and verbal means to both specialist and non-specialist audiences			
C3	Evaluate the relevance and reliability of information from a variety of sources			
C4	Manage learning showing initiative and time management			

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.

General textbooks:

The Nervous System (Churchill) Eds. AT Michael-Titus, PA Revest, PJ Shortland 2010, Chapters 4 and 5.

Fundamental Neuroscience (Academic Press) Eds. Squire, Berg, Bloom, Du Lac, Ghosh & Spitzer 2008.

Neuroscience (Sinauer Associates, Inc.) Purves, D., Augustine, G. J., Fitzpatrick, D., Hall, W. C., LaMantia, A.-S., McNamara, J. O. and White, L. E. 2012.

Textbooks will be supplemented with appropriate reviews and primary research articles elucidating current conceptual frameworks and debates

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	10
Guided independent study	Independent	118
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	32	21
Placement		
Independent Study	118	79
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 Type	KIS Category	Duration/Length	Percentage Weighting	Final element of	Qualifying Mark
Assessment					assessment	
Exam	Written Exam	Written	3 Hours	80	Yes	40
In Course assessment	Written assignment inc. Essay	Coursework	3 x 1000	20		N/A

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
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 Synoptic reassessment details (if you have indicated synoptic reassessment above, please give details)

 Brief Description of Assessment
 Assessment Type
 Duration/Length of Examination/ Coursework

 Examination
 Written Exam
 3 Hours