

Module Details	
Module Title	Skin Biology, Stem Cells and Regenerative Medicine
Module Code	BIS7013-B
Academic Year	2021/2
Credits	20
School	School of Chemistry and Biosciences
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Lectures	16
Tutorials	5
Laboratories	3
Directed Study	170
Practical Classes or Workshops	6

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 1

Module Aims
<p>Aims: To develop a comprehensive understanding and detailed knowledge of:</p> <ol style="list-style-type: none"> <li>1. Skin development, skin structure and function in health and disease</li> <li>2. Stem cells in development, tissue homeostasis and ageing</li> <li>3. Aims, principles, tools and therapeutic potential of regenerative medicine</li> <li>4 Major experimental models used in stem cell biology and regenerative medicine</li> </ol>

Outline Syllabus
<p>Skin structure and function in health and disease; stem cells in development, tissue homeostasis, repair and ageing; molecular and cellular mechanisms of skin morphogenesis and regeneration; molecular and cellular mechanisms of skin ageing and diseases; aim, principles, tools and potential of regenerative medicine; major experimental models used in stem cell biology and regenerative medicine.</p>

Learning Outcomes	
Outcome Number	Description
01	Systematically understand, and be critically aware of, current knowledge of skin structure and function in health and disease, including skin development, homeostasis and regeneration.
02	Discuss how molecular and cellular defects lead to skin and hair follicle abnormalities and diseases.
03	Discuss the principles of stem cell biology in relation to development, tissue homeostasis and regeneration.
04	Critically evaluate the major experimental models used in Stem Cell Biology and Regenerative Medicine.
05	Critically evaluate the aims, principles, major tools and therapeutic potential of regenerative medicine.
06	Demonstrate personal responsibility for self-directed learning and time management.
07	Demonstrate oral and written scientific communication skills.

Learning, Teaching and Assessment Strategy
<p>The curriculum to develop the knowledge and understanding required in this module is delivered in online lectures and workshops/journal clubs. Development of knowledge and understanding and other skills, such as critical analysis of the information, problem solving and scientific writing, is also achieved using laboratory practical sessions . Significant time will be allocated for directed studies. The workshop exercises and practical classes will require students to work under pressure, meet deadlines and develop advanced communication skills.</p> <p>The comprehensive knowledge and understanding of the subject developed by the student will be assessed by coursework assessments in the form of a written report and a critical literature review on a specific subject to develop written report and essay writing skills as well as in class individual readiness assurance test (IRAT) during workshops. Students will also be supported by two formative assessments and feedbacks on one critical appraisal draft and iRATs.</p>

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Written	Critical Literature Review on a Specific Subject (3000 words)	50%
Summative	Laboratory Report	Written Report on Skin structure in health and diseases workshop (2000 words)	40%
Summative	Examination - Open Book	Three Online Open Book extended MCQ'S performed during Online Workshops	10%
Formative	Laboratory Report	Written report on practical session	N/A
Formative	Online MCQ Examination	One online open book extended MCQs performed during a workshop	N/A

## Reading List

To access the reading list for this module, please visit <https://bradford.rl.talis.com/index.html>

*Please note:*

*This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.*

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