

# 2006/07 Taught Postgraduate Module Catalogue

## **BIOL5230M**

Reproductive Genetics and Stem Cells

**15 credits**

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**Taught** Semester 1 [View Timetable](#)

**Year running** 2006/07

### **Pre-requisite qualifications**

BSc

**Module replaces** BIOL5227M

**This module is not approved as an Elective**

### **Objectives**

On completion of this module, students should be able to:

- Explain human reproduction and development;
- Discuss the causes of infertility, particularly genetic causes;
- Understand treatment using assisted reproduction and pre-implantation genetic diagnosis;
- Explain the origin and derivation of embryonic stem cells and their use to model human disease;
- Describe the characteristics of human embryonic and adult stem cells and their application for regenerative medicine;
- Discuss the ethics related to this area.

### **Syllabus**

Male and female reproductive systems. Gametogenesis and early human development. Infertility, including genetic causes, assisted reproduction and preimplantation genetic diagnosis. Embryonic stem cells and models of human disease. Origin and derivation of human embryonic and adult stem cells. Therapeutic cloning. Applications in regenerative medicine. Reproductive genetics and stem cell related ethics.

### **Teaching methods**

Workshops: 3 x 3 hour;

Debate: 1 x 2 hours

### **Private study**

5 hours work for each of 9 on-line lectures;

10 hours preparation per workshop: 30 hours;  
Preparation of 2 reports: 50 hours;  
Preparation for debate: 14 hours.

### **Progress monitoring**

Reports and workshops.

### **Methods of assessment**

2 reports: problem-based and case study: 35% each;  
Debate: 20% each;  
Workshop contributions: 10%.

### **Reading list**

The [reading list](#) is available from the Library website