BSc (Hons) Bi Med Science:

**Biomedical Sciences**

Provided by the School of Life Sciences, University of Hull

2017 intake

**Study themes:**
- Cancer biology
- Cardiology
- Molecular aspects of disease
- Genetics
- Medical microbiology
- Fertility and developmental biology

**Information about the School:**

The School of Biological, Biomedical and Environmental Sciences at Hull offers a wide range of degrees including biomedical science, biology, biology with molecular bioscience and human biology as well as zoology, aquatic zoology and marine and freshwater biology. The biomedical science degree in particular has proved extremely popular and has met a need within the health service for training scientists for work within a hospital environment.

The degrees offered in the School reflect the research interests of the staff, which are broadly divided into marine and freshwater biology, ecology and evolution, and molecular and cellular biosciences. Of particular interest to potential intercalating students is the molecular and cellular biosciences research. This encompasses a variety of topics including the processes involved in heart failure, cancer immunology, cancer diagnosis, cancer chemotherapy, and medical microbiology. The focus on high quality research in the School is delivering powerful insights into fundamental biological questions, as well as translational research with clear implications for medicine. Key to these advances is our ability to study biological processes at the molecular and cellular levels, and thus provide the mechanistic understanding to underpin the design of new diagnostic tools and treatments.

Over the past few years there has been considerable investment into upgrading the facilities within the School. This includes the refurbishment of teaching and research laboratories and the opening in 2012 of the new Biomedical Science building, the Allam building. This investment in infrastructure has been coupled with recruitment to a number of new appointments thus strengthening the Schools research profile.

The intercalated degree with HYMS will allow students to do an intensive research project in the laboratory, providing firsthand insight into the problem solving and organisational skills required in doing research. An indication of the research topics in the department can be found by looking at the research interests of the staff below.
In addition, lecture courses offer the students the opportunity to broaden and strengthen their biological knowledge and understanding, providing a powerful complement to their medical training.

**Research project supervisors relevant to medicine and indicative project themes:**

**Cancer biology**
- Dr Lynn Cawkwell: Identification of novel cancer biomarkers by proteomics
- Prof John Greenman: Tumour biology (genetics, cytogenetics, immunology)
- Dr Steven Maher: Gastrointestinal cancer biology and anti-cancer therapeutics
- Dr Isabel Pires: Novel regulators of the aspect of the tumour microenvironment
- Dr Justin Sturge: Prostate cancer

**Cardiology**
- Dr Chris Cawthorne: Validation of molecular imaging agents
- Dr Charlotte Dyer: Lab on a chip technology and diagnosis of disease
- Dr Sandra Jones: Cardiology and aging
- Dr Pedro Beltran-Alvarez: Post-translational modification of proteins in cardiac disease

**Molecular aspects of disease**
- Dr Camille Ettelaie: Cancer biology, metastasis, angiogenesis
- Dr Rebecca Hill: Diabetic neuropathies
- Prof Khalid Naseem (HYMS): Thrombosis and platelet function in health and disease
- Dr Francisco Rivero (HYMS): The actin cytoskeleton in health and disease
- Dr Laura Sadofsky: Molecular pharmacology of ion channels
- Dr Graeme Stasiuk: Design and synthesis of contrast agents for biological imaging

**Genetics**
- Dr Heather Sealy-Lewis: Gene regulation in *Aspergillus nidulans*
- Dr Lori Lawson-Handley: Genetic diversity in human populations
- Dr Isabella Capellini: Macro-evolutionary patterns and processes of adaptation in mammals

**Medical Microbiology**
- Dr Frank Voncken: Energy metabolism in *Trypanosoma brucei*

**Fertility and developmental biology**
- Dr Roger Sturmey (HYMS): Metabolic events in early development

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