Biochemistry of Protein Production for Biochemical Engineers (BENG0013)

**Description**

The course will introduce protein biochemistry, with related analytical and molecular biology techniques, specifically tailored for biochemical engineers. Fundamentals of protein expression, purification, structure, folding and stability will underpin case studies in protein manufacturing, including purification, formulation and associated problems such as aggregation.

Upon completion of the course, a student should be able to:

- Become familiar with different protein types and structures used as therapies
- Understand different expression and purification methods for therapeutic proteins
- Familiarise with techniques available for modifying protein expression constructs and an understanding of how these may improve bioprocess manufacturing
- Evaluate the factors that influence protein stability, structure and functions
- Discuss the analytical tools available for measuring quality attributes of proteins during bioprocessing and product formulation, and appreciate their strengths and limitations in the regulatory context of pharmaceutical manufacture

**Key information**

- **Year**: 2018/19
- **Credit value**: 15 (150 study hours)
- **Delivery**: UG L5, Campus-based
- **Reading List**: View on UCL website
- **Tutor**: Prof Paul Dalby
- **Term**: Term 1
- **Timetable**: View on UCL website

**Assessment**

- Written examination (main exam period): 70%
- Coursework: 30%

**Find out more**

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk

**Disclaimer**: All information correct as of December 2018. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.