OVERVIEW

Biochemistry and Molecular Biology are the fundamental disciplines that underpin the study of living organisms. Both fields providefascinating insights into the assembly and function of biological molecules, machines, cells and tissues. Equally important, the theoretical background and underlying experimental strategies provide the foundation for the current exciting developments in molecular genetics, cell biology, neurobiology, developmental biology, medical science and biotechnology.

The Part IB Biochemistry and Molecular Biology (BMB) course offers in-depth understanding of biological molecules and processes that is essential for proper comprehension of all modern biomolecular sciences. The course introduces state-of-the-art concepts of molecular structure and function, cellular development and metabolic control, and **builds naturally on the foundations that will be familiar to you from Part IA Biology of Cells.**

FIND OUT MORE:

FOR MORE ABOUT BMB:

https://www.bioc.cam.ac.uk/teaching/second-year/bmb

COURSE ORGANISER:

Juan Mata
jm593@cam.ac.uk

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DEPT OF BIOCHEMISTRY

https://www.bioc.cam.ac.uk/

BIOCHEMISTRY & MOLECULAR BIOLOGY

NST 1B BMB

UNIVERSITY OF CAMBRIDGE

LECTURES

MICHAELMAS TERM

- Gene Cloning & Manipulation
- Nucleic Acid Structure, Protein-Nucleic Acid Interactions & Transcription
- Post-transcriptional Control of Gene Expression
- Protein Structure, Function & Evolution
- Enzyme Catalysis & Protein Engineering

LENT TERM

- Control of Metabolism
- Transduction in Bacteria, Mitochondria & Chloroplasts
- Transmembrane Signalling: Molecules & Mechanisms
- Control of Eukaryotic Cell Growth
- Bacterial Chemotaxis
- Immunology: the basics

EASTER TERM

- How the Other Three Quarters Lives - How Protists Break the Rules of Biochemistry
- Oncogenes, Tumour Suppressor Genes & Cancer

LECTURE SCHEDULE

Lectures are **Mon, Wed, Fri** at 10am, Thomas Lecture Theatre, Department of Biochemistry

PRACTICALS

Practical classes provide a unique opportunity for you to experience at first hand the techniques and experimental strategies of modern biochemical and molecular biological research, and give you another chance to consolidate and expand on the lecture material.
Our aim is to provide interesting practicals that work and are closely integrated with the lecture course.

As well as 'hands-on' practical classes, two sessions take the form of '**Journal Clubs**', where students read, analyse and discuss a particular research paper. We also have an interactive session on **Experimental Design**.

PRACTICAL SCHEDULE

Practical classes are held every **Thurs, Fri, Mon, Tues, Wed,**
NST 1B Teaching Lab, Department of Biochemistry

Most practical sessions involve informal classes of 20-30 students working in pairs.

EXAMINATIONS

THE COURSE IS EXAMINED THROUGH:

- Written exam papers that include questions on the lecture material
- Data handling questions that focus on the material from the practical classes