UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Molecular Biology of Eukaryotic Cells

2223-1-F0601Q101

Aims

1. Knowledge and understanding
to know the basic concepts of Molecular biology
2. Applying knowledge and understanding
to use the acquired knowledge to understand scientific papers
3. Making judgements
to apply the basic principles of molecular biology in order to solve molecular problems
5. Learning skills
to acquire the methodological and scientific skills required in the advanced courses

Contents

Two major areas of active cellular and molecular biological research will be emphasized:
Section 1: advance techniques cellular and molecular techniques
Section 2: The cellular response to DNA damage; DNA damage and repair

Detailed program

Eucaryotic vectors
Cell culture and cell based approaches
Genomic and proteomics methods
Light and confocal microscopy
Approaches for the study of the DNA damage response
Mechanisms of DNA damage and repair

Cellular response to DNA damage
DDR and cell cycle
How to read and analyse a scientific paper

Prerequisites

Genetics, Molecular Biology, Biochemistry

Teaching form

Frontal lessons

Textbook and teaching resource

The course will use review articuls as a starting point, and original recent work. PDF files of the slides will be provided. Will be available on the elearning Platform.

Semester

First semester

Assessment method

The oral test will consist in the discussion of a scientific article chosen by the student from those provided at the end of the course and concerning section 2 of the program of the second module, and on questions concerning the general theoretical part discussed in section 1

Office hours

Upon appointment writing to: silvia.barabino@unimib.it

Sustainable Development Goals