UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Molecular and Oncological Therapy

2425-2-F0901D048-F0901D082M

Aims

The students will learn the following items:

- Use of TKIs in different neoplastic diseases;
- Mechanisms of resistance to TKIs;
- Methods to identify and analyze genetic lesions causally connected to the transformed phenotype;
- DNA and Histone methylation as a therapeutic targets;
- The RNA interference targeting strategy;
- High Throughput Sequencing applied to neoplastic diseases.

Contents

Students will be trained on the main targeting stragegies using small molecules in Hematology and Oncology.

Specifically, the students will learn how to critically evaluate targets and the importance of the relationships between targets and mechanisms of neoplastic transformation.

Detailed program

Use of TKIs in different neoplastic diseases;

Mechanisms of resistance to TKIs.

Methods to identify and analyze genetic lesions causally connected to the transformed phenotype.

DNA and Histone methylation as a therapeutic targets.

The RNA interference targeting strategy.

High Throughput Sequencing applied to neoplastic diseases.

Prerequisites

Basic knowledge on pathology and immunology. Advanced knowledge in biochemistry, molecular biology and genetics

Teaching form

12 hours of in-person lessons and 4 hours of interactive lessons.

Textbook and teaching resource

Updated reviews on all topics will be suggested at each lesson

Semester

First Semester

Assessment method

Written test: a single, open-ended question
Final oral test with the presentation of a scientific article

Office hours

Contact the teacher by email (email: rocco.piazza@unimib.it)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING