

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# **COURSE SYLLABUS**

# **Molecular and Oncological Therapy**

2324-2-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**

Frontal lectures.

### 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

# **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING