

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

### SYLLABUS DEL CORSO

## **Diagnostica Biotecnologica**

2021-3-I0302D035-I0302D047M

#### **Aims**

Molecular diagnostics of Thrombophilia, Hereditary hemochromatosis, cardiovascular risk, and cancer. Epigenetic modifications. Pharmacogenetics and pharmacogenomics. Tools for gene expression analysis (Calibrated RT-PCR, Real Time RT-PCR, Microarrays). Molecular diagnostic in solid tumors and haematological malignancies

#### **Contents**

The primary goal of the course is to provide tools for the understanding of the laboratory techniques of clinical molecular diagnostics.

#### **Detailed program**

Molecular diagnostics of cardiovascular risk and thrombophilia (FV, FII, MTHFR, CBS, APO-E, gene mutations), hemochromatosis molecular diagnosis (HFE, TFR2, FPN1, etc), molecular diagnosis of cancer. Genetic and phenotypic screening.

Pharmacogenetics e pharmacogenomics.

Genetic expression studies (calibrated RT-PCR, Real Time RT-PCR, Microarrays).

#### **Prerequisites**

Having passed the compulsory courses of the degree

## **Teaching form**

Lectures

## Textbook and teaching resource

The Teachers will provide educational materials

#### Semester

First semester

#### **Assessment method**

Written test: multiple choice test and open questions

Oral Test: discussion of written test

#### Office hours

On appointment requested by mail