



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Biotechnology-Based Diagnostics

2425-3-I0302D035-I0302D047M

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#### 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

**Teaching form**

Lectures

**Textbook and teaching resource**

The Teachers will provide educational materials

**Semester**

First semester

**Assessment method**

Oral Test

**Office hours**

On appointment requested by mail

**Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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