



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Tecniche Strumentali

2526-1-I0302D005-I0302D021M

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#### Aims

To describe PCR and molecular tests based on it (also sample preparation)

#### Contents

To provide the fundamentals of the main principles of instrumental techniques employed in Clinical Molecular Biology laboratory.

#### Detailed program

Techniques for the lymphocyte separation from whole blood. DNA and RNA extraction, purification, quantification and storage: theory and practical aspects. Restriction enzymes: theory and diagnostic applications. Retro transcription reaction. Polymerase chain reaction (PCR): parameters for the amplification (denaturation, hybridization, extension) master mix. Amplification products identification (agarose-gel electrophoresis and hybridization techniques). Genetic mutation identification. PCR product sequencing. Viral nucleic acid assays .

#### Prerequisites

Biomedical Sciences

## **Teaching form**

Exercises

## **Textbook and teaching resource**

Teacher will provide teaching material.

## **Semester**

second semester

## **Assessment method**

Oral examination

## **Office hours**

By appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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