



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Genetica Medica

2324-4-H4101D262-H4101D077M

Aims

To introduce the students to appropriateness of genetic prescriptions

Contents

Main techniques of cytogenetics, molecular cytogenetics and molecular genetics

Detailed program

- choosing between the different technologies for the diagnosis of genetic diseases; applications, advantages and limitations in comparison: cytogenetics; molecular cytogenetics (FISH and CGH array, SNP array); molecular genetics (PCR, digital and real-time PCR, allele-specific amplification, hybridization with allele-specific oligonucleotides, Sanger and NGS sequencing, MLPA)
- genetic counseling
- genetic tests: classification (diagnostic, presymptomatic, predictive, pharmacogenomics); appropriateness of requests for genetic testing and clinical utility; genetic testing for research; ethical and social aspects of genetic testing; system for genetic variant classification; ability to read and understand information of a genetic report.
- Genetic and Genomic Databases
- genomic diseases and complex diseases
- cancer predisposition syndromes
- invasive and Non invasive prenatal genetic testing
- clinical cases

Prerequisites

Those foreseen by the didactic regulations of the CdS

Teaching form

Lessons

Textbook and teaching resource

Textbook: Tom Strachan, Andrew Read: Genetica molecolare umana

Slides

Guidelines and scientific articles provided by the teacher

Semester

First semester

Assessment method

See Syllabus of Laboratory Medicine

Office hours

Appointemt on request by e-mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING
