UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Clinical Biochemistry and Molecular Biology

2627-4-H4101D262-H4101D178M

Aims

The goal of the course is to provide the tools for the correct use of biochemical, and the definition of their indications and interpretation.

Contents

CLINICAL BIOCHEMISTRY AND CLINICAL PATHOLOGY: management of request and results from clinical biochemistry laboratory. Specific topics

Detailed program

1. Clinical laboratory. Organization principles. Laboratory Informative System.
2. The correct request of lab tests.
3. General rules of Quality assessment and their application in the different sections of lab.
4. Pre-analytical, analytical and post-analytical variability. Conditions able to affect lab test results.
5. Techniques for the collection of biological fluids/materials to submit to biochemical, microbiological, and genetic tests.
6. Blood and biological fluid analysis: urines, cerebrospinal fluid, synovial, pleural, pericardic, peritoneal and amniotic fluid collection, analysis.
7. Auto protection measures.
8. Application of molecular diagnostics to Clinical Biochemistry labs.
9. Monoclonal gammopathy
10. Inherited metabolic diseases
11. Principles of immune-haematology and transfusion medicine

12. The diagnostic laboratory of allergology
13. the laboratory of autoimmunity
14. sepsis
15. laboratory tests in emergency

Prerequisites

basic science knowledge

Teaching form

6 frontal Lectures,
12 hours traineeship

Textbook and teaching resource

Ciaccio M, Lippi G. Biochimica Clinica e Medicina di Laboratorio. EdiSES 2020

McPherson RA, Pincus MR Henry's Clinical Diagnosis and Management by Laboratory Methods, 23a edizione in lingua inglese. Ed. Elsevier, 2016

Federici G. Medicina di laboratorio ed McGraw-Hill. IV edizione, 2014
Marshall W, Lapsley M., Day A Clinical chemistry ed Mosby. 8a edizione in lingua inglese. Ed. Elsevier, 2016

Kumar V, Abbas A., Aster J.C. Robbins & Cotran Le basi patologiche delle malattie Ed. Masson, 9th ed., 2015

Slides and text given by the teachers

Semester

first semester

Assessment method

see the general Syllabus of the Course

Office hours

Visits by appointment that can be requested via e-mail
valerio.leoni@unimib.it

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY