



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Gastro-Intestinal Diseases

2324-2-F0901D059-F0901D100M

Aims

The aims of the Course is to provide the student with a critical knowledge of the technical instruments and strategies normally employed in defining the pathophysiology of the various disorders and possible new therapeutic approaches.

Contents

The aim of this course is to present several examples of gastrointestinal diseases and their physiopathology, and the role of biotechnology in their diagnosis/ therapeutic approach. A general introduction on the methodologies employed to identify the genes involved in multifactorial diseases will be provided. Moreover it will provide the student with a critical knowledge of the regulatory mechanisms of iron metabolism and related disorders (iron deficiency, primary and secondary iron overload, local and systemic), and technical instruments and strategies normally employed in studying the pathophysiology of iron metabolism and related disorders, and possible new therapeutic approaches.

Detailed program

Monogenic and multifactorial diseases: genetic studies and technical approaches
Celiac disease
Inflammatory bowel diseases
Stem cells and their niche in the intestine
Colon cancer, sporadic and inherited forms
Iron homeostasis (mechanisms of cellular and systemic regulation)
Iron homeostasis (iron and erythropoiesis)

Hereditary disorders of iron metabolism: the hemochromatosis model
Other hereditary disorders of iron metabolism (iron deficiency anemia and anemia with iron overload)
Iron and damage

Prerequisites

Advanced knowledge in genetics, biology and molecular biology.

Teaching form

Lessons in presence.

Textbook and teaching resource

Reviews published in international journals

Semester

First semester

Assessment method

These subjects will be evaluated within the exam of the integrated course, that will be an oral examination on the subjects taught during the lectures or on further subjects (part of the program) not exhaustively discussed in class. The exam will be in person.

Office hours

By appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION
