

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# SYLLABUS DEL CORSO

## Introduzione Agli Agenti Diagnostici in Vivo

2324-2-10303D034-10303D083M

#### Aims

- The aim of the course is to provide students with the To provide students with the basic principles of general pharmacology and the mechanism of action of some of the major drugs

- Student shoul also learn the basic regulatory and pharmacological aspects of drug used in diagnostic, describe the different class of drugs used in Radiology or Nuclear Medicine; learn the fundamental properties of pharmacokinetic, pharmacodynamics, safety and efficacy of drug used in diagnostic and in particular of CT radiological contrast media

#### Contents

Basic principles of pharmacology and regulatory requirements of diagnostic medicinal products in general with a more detailed description of iodinated contrast agents

#### **Detailed program**

*Introduction* to diagnostic medicinal products, regulatory requirements, general descriptions of radiological contrast media and radiopharmaceuticals.

*Pharmacokinetics* and chemical properties of iodinated contrast agents: chemical structure, physic-chemical properties, classification on the basis of osmolarity, distribution, clearance

Pharmacodinamics: X rays attenuation and effects on images

Adverse reaction: description of adverse reaction of iodinated contrast agent, severity, frequency, risk mitigation

and guide line

Interaction with other drugs: interaction of iodinated contrast agents with interleukine-2, metformin and beta blockers.

### Prerequisites

**Biomedical Sciences** 

### **Teaching form**

Lectures, exercises

### Textbook and teaching resource

Slide presented during the course

#### Semester

Second semester

### Assessment method

#### Office hours

By appointment required by mail

#### **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING