



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## **COURSE SYLLABUS**

### **Development of diagnostic methods for the evaluation of the response to treatments in preclinical models of glioma**

2122-90R-MOD11

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#### **Aims**

The aim of the course is to learn the fundamentals of research and diagnostic application of imaging in clinical and preclinical field in glioma.

#### **Contents**

Main points of the lectures:

Heterogeneity and molecular classification of glioma

State of the art of the different imaging techniques available for both preclinical and clinical research

Examples of established models of glioma and their applications.

#### **Detailed program**

General introduction:

- molecular classification of glioma
- cellular heterogeneity of glioma

- therapy and resistance
- diagnostic methods and monitoring of therapy response
- neuroinflammation and glioma

Imaging methods (MRI, PET, CT, optical imaging):

- brief introduction of imaging techniques
- study of tumor heterogeneity using imaging

Preclinical models of glioma

Using of imaging techniques for the monitoring of therapy response.

## **Prerequisites**

For students attending the PhD program in Neuroscience.

## **Teaching form**

Lectures.

## **Textbook and teaching resource**

Scientific papers will be suggested by the teachers during the lessons.

## **Semester**

II semester: January - February 2022

It is possible to change according to enrolled PhD students.

## **Assessment method**

Multiple choice test at the end of the lectures.

## **Office hours**

