UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Stem Cells: a Tool for the Study of Human Pathologies

2627-121R016

Title

Stem cells: a tool for the study of human pathologies

Teacher(s)

Prof. Silvia Nicolis

Language

English

Short description

The course will address the study of the origin and the molecular mechanisms at the basis of different stem cells multi-pluripotency, focusing on neural stem cells in development and disease. We will address a case study, the monogenic disease caused by heterozygous mutations of the SOX2 transcription factor, as an example for the investigation of the molecular mechanisms of the disease via functional studies in mouse genetic models and the use of functional genomics approaches in in vitro stem cell-based mouse and human models (ex-vivo-derived mouse neural stem cells; human pluripotent stem cells-derived brain organoids).

CFU / Hours

1 CFU / 8 hours

Teaching period

Thursday, 5 November 2026, 9:00 AM – 1:00 PM – U18-08
Thursday, 12 November 2026, 9:00 AM – 1:00 PM – U28-01

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING