



UNIVERSITÀ DEGLI STUDI DI TORINO

ID

TIC04_DIP_BIOTEC

Visiting Professor Program Academic year 2019/2020

DEPARTMENT OF MOLECULAR BIOTECHNOLOGY AND HEALTH SCIENCES

TEACHING COMMITMENT: 16 hours

The Visiting professor will teach in two different courses.

COURSE TITLE

Interactions and Gene Networks

TEACHING PERIOD

1st term

SCIENTIFIC AREA

Biology

LANGUAGE USED TO TEACH

English

The Degree Course is entirely taught in English

COURSE SUMMARY

The general aim of the course is to illustrate how genetic analysis may be used for identifying gene interactions. In particular, the course is focused on epistatic interactions in specific pathways including growth factor and cytokine signaling pathways and some metabolic pathways.

LEARNING OBJECTIVES

The student learns the main genetic approaches for identifying gene interactions and acquires the ability to recognize epistatic interactions in complex pathways. By the analysis of current scientific literature, the student learns how to use genetic analysis for defining gene networks in specific contexts including cell growth and differentiation, metabolism and development. Moreover, the student learns how to present to a public a scientific article.

OTHER ACTIVITIES BESIDES THE COURSE

Visiting professor will do a seminar addressed to the Department and will participate to scientific discussions with PhD students and Research fellows

ADDITIONAL COURSE

COURSE TITLE

Genetic models of human pathology

TEACHING PERIOD

2nd term

SCIENTIFIC AREA

Biology

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

The course aims to illustrate the main techniques of genetic analysis in different animal models and to analyze some examples of animal models of human diseases. Through specific exercises, the course aims to teach genotyping and phenotyping techniques of mutants useful for the study of major human diseases such as tumors and cardiopathies.

LEARNING OBJECTIVES

Knowledge of how genetically modified animal models can clarify pathophysiological mechanisms.

OTHER ACTIVITIES BESIDES THE COURSE

Visiting professor will do a seminar addressed to the Department and will participate to scientific discussions with PhD students and Research fellows

VISITING PROFESSOR PROFILE

The Visiting Professor candidate for this course should meet the following requirements:

- solid scientific background in the study of signal transduction in cancer demonstrated by high-impact scientific publications, participation at international meetings and coordination of research projects.
- Teaching experience

CONTACT PERSON AT THE DEPARTMENT

Emanuela Tolosano

emanuela.tolosano@unito.it