



Visiting Professor Program Academic Year 2024/2025

TEACHING COMMITMENT: 24 hours

COURSE TITLE

Role of oxidoreductive Processes in the Pathogenesis of Diseases

TEACHING PERIOD

2nd term

SCIENTIFIC AREA

Biochemistry

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

Redox regulation is relevant in all biological processes. The course will present the biochemical principles of oxido-reductive processes in different tissues, in physiological and pathological conditions. The biochemistry bases to understand cardiovascular diseases, neuroinflammation and neurodegenerative diseases, dysmetabolism syndromes, cancer onset and progression will be presented. Part of the course will be developed with frontal seminars, part in the flipped classroom modality.

LEARNING OBJECTIVES

At the end of the course the student must be able to: 1) identify the type of alteration of oxidoreductive processes that underly specific pathological diseases; 2) present and explain to the class the biochemical alterations at the basis of specific diseases, in the form of brief case-reports. Not applicable.

OTHER ACTIVITIES BESIDES THE COURSE

2 seminars to PhD students on her/his research topic (PhD programs in: Molecular Medicine; Biomedical Sciences and Oncology; Biological Sciences and Applied Biotechnology; Complex Systems of Life; Translational Oncology);

2 seminars to research fellows and professors on her/his research topic.

VISITING PROFESSOR PROFILE

The Visiting Professor is expected to have a multidisciplinary portfolio of research and teaching expertises, including oxidoreductive processes treated with a transdisciplinary approach (including chemistry, biochemistry, physiology, pathology).

A documented experience of teaching these subjects to undergraduated, graduated and PhD students, the enrolment as faculty member (full professor) at the Home Institution, the tutoring of undergraduated, graduated and PhD students are highly desirable.

Other preferential titles are:

- a high-quality research in the field of teaching (e.g H-index > 30);
- an international reputation as eminent scientist in the field (e.g. attendance to international meetings, awards received for her/his research at Institutions different from the Home Institution);
- a scientific career documenting research or teaching periods in Institutions abroad from the home Country.

CONTACT REFERENT

Chiara Riganti

chiara.riganti@unito.it