



Direzione Ricerca,
Innovazione e
Internazionalizzazione

**UNIVERSITÀ
DI TORINO**

ID

VP_006_BIOS

Visiting Professor Program Academic Year 2025/2026

TEACHING COMMITMENT: 16 hours

COURSE TITLE

Oncology and Molecular Pathology - Module 'Molecular Bases of Muscle Pathology'

TEACHING PERIOD

I semester

SCIENTIFIC AREA

General Pathology

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

The module will provide students with an in-depth insight into muscle derangements occurring in aging and in several pathologies of both neurogenic and inflammatory origin, such as amyotrophic lateral sclerosis, muscle dystrophies, multiple sclerosis, cancer, obesity, diabetes. The skeletal muscle accounts for about 50% of total body proteins and is, together with the nervous system, the body compartment mainly involved in the maintenance of a good quality of life, in terms of independence, possibility to perform normal daily activities, prevention of risk of falls, etc. For these reasons it is important to form students providing them a good knowledge about the mechanisms that can lead to reduced muscle mass and function.

LEARNING OBJECTIVES

Aim of the module is to provide students with instruments to understand the molecular bases of muscle derangements associated with human diseases, including cancer. Students will be able to

establish connections between molecular alterations and pathological processes at high integration levels (subcellular compartments, cells, tissues/organs and organism). These objectives will be reached by combining the interaction with an expert in the field with the discussion on recently published papers.

OTHER ACTIVITIES BESIDE THE COURSE

Seminars will be offered to PhD students enrolled in the PhD in Medicine and Experimental Therapy.

Four hours will be dedicated to group work with presentation and discussion of selected papers.

VISITING PROFESSOR PROFILE

The Visiting Professor should have a background in biology and/or biotechnology. She/he should possess a wide expertise in the field of chronic pathologies, with particular emphasis on muscle function and metabolism. Her/his contribution to the state of the art in muscle pathology should be internationally recognized.

CONTACT REFERENT

Paola Costelli
paola.costelli@unito.it