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## **Visiting Professor Program Academic Year 2024/2025**

**TEACHING COMMITMENT:** 16 hours

**COURSE TITLE**

**Oncology and Molecular Pathology - Module 'Molecular Pathology of Muscle and Liver Metabolism'**

**TEACHING PERIOD**

1st term

**SCIENTIFIC AREA**

General pathology

**LANGUAGE USED TO TEACH**

English

**COURSE SUMMARY**

The module will provide the students a deep insight into metabolic derangements occurring in aging and in several pathologies of both neurogenic and inflammatory origin, such as 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 metabolic alterations associated with reduced muscle mass and function.

## **LEARNING OBJECTIVES**

Aim of the module is to provide students with tools useful to understand the molecular bases of metabolic derangements associated with human diseases, including cancer, obesity and diabetes. 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.

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

## **OTHER ACTIVITIES BESIDES THE COURSE**

Seminars will be offered to PhD students enrolled in the PhD in Medicine and Experimental Therapy, University of Torino.

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## **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**

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