Teaching for international courses
Visiting Professors
Academic year 2018/2019

1st term

COURSE TITLE
Oncology and Molecular Pathology - Module 'Molecular bases of muscle pathology'

Scientific area
General Pathology

Department of Life Sciences and Systems Biology

Language used to teach
English

Teaching Commitment: 16 hours

Course summary
The course will provide the students a deep 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 account 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 course 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.

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

Other activities besides the course: i.e. seminars and conferences addressed to PhD students and research fellows, dissemination conferences
Seminars will be offered to PhD students enrolled in the Doctoral School of Life and Health Sciences.

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 person at the Department
Prof. Paola Costelli
paola.costelli@unito.it