UNIVERSITY OF GENOA
DEPARTMENT OF INFORMATICS, BIOENGINEERING, ROBOTICS AND SYSTEMS ENGINEERING
MASTER'S PROGRAM IN BIOENGINEERING

Dibris

Thesis Project Form

Title (tentative): Analysis of protein deregulation in in-vitro models of cisplatin-resistant lung tumor cell lines

Thesis advisor(s): Coronel Vargas Gabriela Ferranda

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Address:

Phone:

Description

Motivation and application domain

Study of protein deregulation in biological samples (cell cultures, tissues) through mass spectrometry.

General objectives and main activities

The student will learn and collaborate in the culture of immortalized tumor cell lines induced to cisplatin resistance, in protein extraction protocols, sample preparation for mass spectrometry, MS/MS analysis, processing of mass spectra for protein identification and quantification, differential and multivariate data analysis using the R programming language, and data validation. Interns with previous experience in cell culture and/or programming in R or Python will be given priority consideration.

Training Objectives (technical/analytical tools, experimental methodologies)

Data analysis in -omics field, especially in proteomics. Managing mass spectra files and developing pipelines for data processing of LC/MS2 or maldi-TOF.

Place(s) where the thesis work will be carried out: IRCCS Ospedale San Martino

Additional information

Maximum number of students: 1