

## Gruppo: BIOCHIMICA-PROTEOMICA

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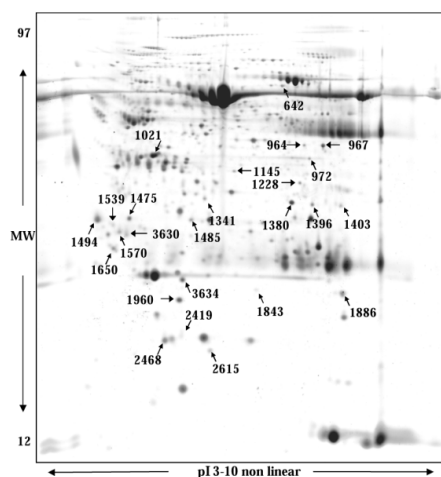
Dott.ssa Serena Lacerenza, dottoranda

**Key-words:** Proteomics, post-translational modifications, cancer , biomarkers, mitochondria, secretome

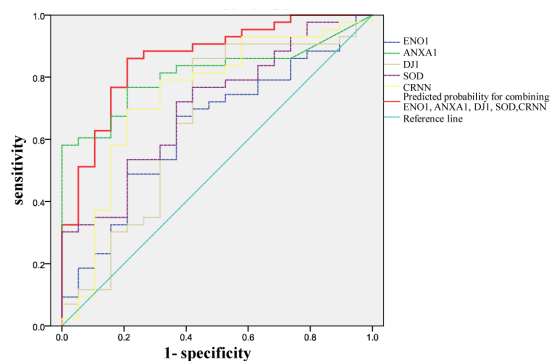
### Biological sample



### Proteomics



### Data Analysis



The interest of our research is to apply a proteomic approach to search potential biomarkers of tumours and to study molecular mechanisms involved in tumorigenesis. We focalize our interest in endocrine tumors such as thyroid, parathyroid but also in mesothelioma. Using two dimensional electrophoresis coupled to mass spectrometry we perform comparative analysis of tissues, cell lines, secretome or biological fluids with the aim to identify specific biomarkers of disease. The potential biomarkers are correlated to clinical parameters. Moreover our group is involved in the mitochondrial Italian Human Proteome Project initiative (mt-HPP) both in the standardization and in the study of the role of mitochondrial dysfunction in diabetes and chronic-fatigue syndrome. Other ongoing researches are focused on the study of post translational modifications of mitochondrial proteins in human beta cells and in blood cells such as platelets and lymphocytes.

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