Bio-agricultural Proteomics and Metabolomics

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This research line is focused on the isolation and structural characterization of proteins and peptides from organisms having bio-agricultural interest and/or from resulting vegetable- and microrganism-derived food products. Results provide information on important biological mechanisms essential for organism life or characterizing their life-cycle, as well as on food quality and safety values. Above-mentioned goals are achieved by the use of advanced separation techniques, such as mono-/bi-dimensional gel electrophoresis and/or liquid chromatography, coupled with innovative methods in biomolecular mass spectrometry and bioinformatics. In this contest, principal activities regard studies on:

- Expression Proteomics and bioinformatics of species with Bioagricultural
 Interest
- o Functional Proteomics of species with Bioagricultural Interest
- o Post-translational modifications in species with Bioagricultural Interest
- Animal/plant biomarkers of healthy/diseased conditions
- Metabolomics of complex systems in agrifood and human nutrition

