



## NITROGEN METABOLISM OF TUMOUR CELLS



### INTRODUCTION

The Cancerómica research group, of the Department of Molecular Biology and Biochemistry of the Faculty of Sciences of the UMA, has the most modern equipment and a highly qualified human team with a wide curriculum in teaching and research works. The group has over 20 years' experience in research of brain genomics and the molecular bases of cancer, has three patents to its name as well as proven experience in collaborations and contracts with companies.

### RESEARCH TOPICS

- Genomics and proteomics of cancer.
- New anti-tumour strategies and targets aimed at tumour glutaminase (GA) as a target.
- Glutamatergic neurotransmission: cell and molecule mechanisms for the synthesis of glutamate (Glu) in the brain.
- Protein chemistry and engineering: Protein-protein interactions between glutaminase and PDZ protein. Structure/function relation of human glutaminase.

### SCIENTIFIC-TECHNICAL SERVICES

- Cloning and sequencing of genes.
- Proteins Purification and characterization. Separation of peptides by HPLC.
- Proteomic techniques (2D gels and analysis and identification of proteins by mass spectrometry)
- Heterologous expression of recombinant proteins of biotechnological, agro-feeding, pharmaceutical or therapeutic interest.
- Generation and purification of polyclonal and monoclonal antibodies.
- Functional genomics: analysis of transcriptome by means of Differential Display.
- In vitro cultivation of animal cells.

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