

1<sup>st</sup> & 2<sup>nd</sup> of July  
Faculty of Biology, Vigo, Spain

# CRIBIO

3 Annual Meeting

*From bench to bedside: diagnosis, therapy & data analysis*

## Book of Abstracts



Universida de Vigo

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Investigacións  
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## Poster Communication (PC26)

### *Shotgun proteomics and schizophrenia: in the search of protein biomarkers in blood*

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#### **Abstract:**

Schizophrenia (SZ) is defined as a highly complex multifactorial neuropsychiatric disorder whose pathogenicity is the result of the sum of genetic and environmental risk factors. Currently, its diagnosis is made through clinical interviews and mental evaluations, which have a high reliability but that lack the support of biological tests that corroborate them. Therefore, the search for biomarkers is extremely important when the ultimate goal is to obtain a correct diagnosis, prognosis and/or theragnosis of the disease. In recent years, proteomics has contributed greatly to the identification of new protein biomarkers that identify this pathology. Within the set of techniques that they cover, the proteomic shotgun allows the identification of proteins from a peptide mixture, product of the enzymatic digestion of all the proteins present in a sample. For this, one of the methodologies used is liquid chromatography coupled to mass spectrometry in the system (LC-MS/MS), which allows the separation and subsequent analysis of all the peptides present in the sample. The objective of this study is the search for peripheral protein biomarkers present in the blood through the LC-MS/MS technology, which through a minimally invasive procedure such as a routine blood test, provide information in the clinic about this psychopathology. To do this, we will analyze the proteome of peripheral mononuclear cells - PBMCs (lymphocytes and monocytes) extracted from the blood samples of patients with SZ before and after treatment, as well as the individuals taken as control.



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