

An **ERC-funded** PhD position is available to join Eduardo Balsa's lab at CBMSO (Madrid) to study the Molecular and metabolic mechanisms underlying mitochondrial dysfunction.

Background: Mitochondria are unique and complex organelles that perform essential functions in many aspects of cell biology. Once considered to be mere sites of ATP generation, it is now evident that these organelles participate in a wide range of cellular processes including calcium homeostasis, apoptosis, redox balance or cell fate. Because of this multifaceted contribution of mitochondria to key biologic and metabolic pathways it is not surprising that mitochondrial dysfunction has been linked to many human disorders including neurodegeneration, diabetes, cancer or aging. The Balsa laboratory seeks to understand the basic molecular components that regulate mitochondrial function and integrate this knowledge in the context of human physiology and disease.

Lab interest: We are currently exploring two central areas. First, we aim to elucidate the molecular mechanisms whereby mitochondrial dysfunction compromise cellular fitness and leads to organ failure in the context of human diseases. Second, we focus on understanding how cancer cells adapt to unfavoured tumour microenvironments by rewiring their mitochondrial metabolism to enable tumour growth and survival.

Valuable requirements:

- Graduated in studies related to biology, biochemistry or biomedical sciences.
- Must hold or will shortly receive a master's degree related to Biosciences.
- Having an excellent academic record will be valued.
- Experience in metabolism and mitochondrial biology is a plus.
- Proficient use of the English language for both oral and written communication.

How to apply:

Interested applicants should submit a motivation letter, a CV, the academic grades and 2 letters of reference from current/previous supervisors in one single pdf file to Eduardo Balsa (ebalsa@cbm.csic.es) indicating ERC-PhD position in the email subject.