

JOB OFFER

Date: 19/09/2024

PRINCIPAL INVESTIGATOR: Eduardo Balsa

SCIENTIFIC PROGRAM: Metabolic and signaling networks in disease

JOB OFFER: Postdoctoral position

PROJECT TITLE: METABOLIC HETEROGENEITY AS A CRITICAL DETERMINANT OF CANCER METASTASIS

PROJECT DESCRIPTION:

Metabolic reprogramming is a hallmark of cellular transformation, yet little is known about the metabolic changes that accompany tumor metastasis. Accumulating evidence supports the presence of dynamic changes in the metabolism of metastasizing cells that are distinct from those that support cell growth in rapidly proliferating cells. Importantly, as primary tumors grow and progress, cancer cells acquire distinctive metabolic profiles that expand the metabolic heterogeneity of the tumor. Thus, a fundamental question in cancer biology is to decipher the metabolic traits, selected during the metabolic evolution of the tumor, that bestow cancer cells with increased metastatic potential. In this project, we aim to develop a holistic understanding of the metabolic determinants and mitochondrial components that contribute to the metastatic capacity of melanoma cells. We will leverage on a multidisciplinary research plan using cutting-edge technologies to deliver significant breakthroughs on key fundamental questions: (1) how does metabolic heterogeneity within the tumor can determine the metastatic outcome, (2) what are the metabolic traits that are selected during the evolution of the metastatic process and how do they support metastatic capacity in these cells and (3) decipher the metabolic signature of circulating tumor cells (CTCs) that is associated with increased metastatic potential.

DURATION:

2 years

REQUIREMENTS, EXPERIENCE AND ACADEMIC QUALIFICATIONS:

The candidate must hold a PhD in biochemistry, biomedicine, or a related field, with extensive experience in oncology, particularly in immunology and/or cancer metabolism. Essential qualifications include hands-on experience with animal models, especially those related to cancer and metastasis, and at least one first-author publication. The candidate should be capable of leading the project, designing and conducting high-quality experiments, preparing scientific reports, assisting in team supervision, and contributing to ongoing research projects.

CONTACT:

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

DEADLINE: 01/12/2024