



## PREDOCTORAL CANDIDATE IN THE CANCER METABOLISM GROUP

The *Laboratory of Cancer Metabolism* directed by Antonio Gentilella is looking for a highly motivated candidate interested in applying for predoctoral fellowships.

The group focuses on understanding ***how the process of oncogenic transformation reprograms the translome***, particularly (1) how metabolic changes alter the *repertoire of translated mRNAs* and (2) how cancer cells can exploit such *translational networks* to survive and overcome standard chemotherapeutic regimens in colorectal cancer and potentially other tumors.

We have recently identified a specialized subset of **40S ribosomes**, which in a complex with the RNA binding protein **LARP1**, bind and preserve a discrete population of mRNAs, termed **5'TOPs**, which not only include Ribosomal Proteins (RPs) and translational factors, but also a new set of anabolic mRNAs (Gentilella et al., *Molecular Cell* 17), which can be translationally switched on and off depending on the cellular metabolic state (Fuentes et al, *Science Advances* 21; Morcelle et al, *Cancer Res* 19).

The long term goal of the lab is to understand by a multi-disciplinary approach basic mechanisms of translation in physiological and in tumor contexts, and to identify **metabolic vulnerabilities** that could constitute critical targets in cancer treatment.

The search is primarily targeted to **master graduates in the biomedicine area** with an academic record of  $\geq 8.5$

The Laboratory of Cancer Metabolism is located inside the IDIBELL, a research center that integrates the biomedical research of the Bellvitge University Hospital (HUB), the Catalan Institute of Oncology (ICO), and the University of Barcelona in the Bellvitge Campus (UB) and the Viladecans Hospital (HV), located in south Barcelona.

To apply please send your CV, cover letter

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