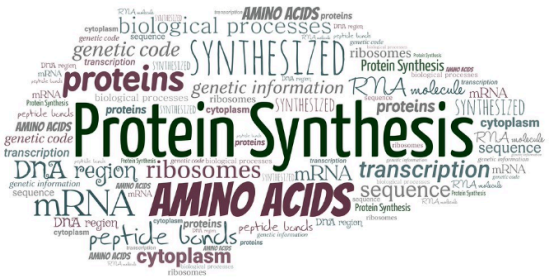
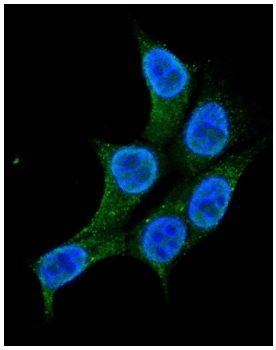


PREDOCTORAL CANDIDATE IN THE CANCER METABOLISM GROUP

The *Cancer Metabolism Group* is looking for an enthusiastic and motivated predoctoral candidate to work on understanding the mechanism(s) exploited by tumor cells to resist adverse growth conditions, such as chemotherapy and metastatic spread. The selected candidate will participare to next calls for PhD fellowship (FI, FPU, Caixa, AECC etc.).

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 results from our group are revealing the 40S-LARP1 complex as a pivotal and dynamic metabolic node that cancer cells utilize to **preserve the capacity of generating tumor biomass**.



The long term goal of the lab is to understand by a multi-disciplinary approach cellular adaptations sustaining the **biomass production** 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 ≥ 8.5. The PhD student will master state of the art techniques such as *Crispr-Cas9* genome editing, basic and advanced *molecular cloning*, most of the gene expression techniques (protein and RNA levels), basic and advanced cell culture manipulations (*2D, 3D, organoids*), *polysome profiling*, *RNAseq* analysis and many others that we run in the lab. The lab has a well established *tutoring capacity for graduate students to develop their potential as researchers*.

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

agentilella@idibell.cat and / or antonio.gentilella@ub.edu