

**Postdoctoral position available in the Efeyan Lab  
*Metabolism and Cell Signaling Laboratory*  
at the Spanish National Cancer Research Center (CNIO) in Madrid**

The Metabolism and Cell Signaling Laboratory at CNIO seeks a highly motivated Postdoctoral Researcher to investigate metabolic alterations of cancer cells and their environment. A general interest in the lab is to understand the links between nutrients and human disease. We investigate how responses to changes in hormones and in cellular and environmental nutrient levels are orchestrated, and the physiological consequences of their deregulation by genetic and environmental perturbations. Toward these aims, our group combines cellular, metabolomic and biochemical approaches with the development of novel genetically-engineered mice.

Candidates for this position must have a PhD degree and a good publication record in the fields of cancer, metabolism or cellular and molecular biology. Excellent technical skills and the ability to think independently and as part of a research team are required. Previous experience with mouse models is expected but not required.

CNIO (<https://www.cnio.es/ing/grupos/index.asp>) is a world-renowned center for excellence in cancer research. In the vibrant atmosphere of Madrid downtown, CNIO offers an international and highly dynamic environment to pursue basic, translational and clinical research with state-of-the-art facilities and core services, including proteomics, mouse transgenesis, genomics, molecular imaging, histopathology, flow cytometry and animal facility.

Key publications:

- Germinal center selection and affinity maturation require dynamic regulation of mTORC1 kinase. Ersching J\*, Efeyan A\*, et al. *Immunity*. 2017.
- RagA, but not RagB, is essential for embryonic development and adult life. Efeyan A et al. *Dev. Cell*. 2014.
- Regulation of mTORC1 by the Rag GTPases is necessary for neonatal autophagy and survival. Efeyan A, et al. *Nature*. 2013.
- Nutrient-sensing mechanisms and pathways. Efeyan A, et al. *Nature*. 2015. Review.
- Amino acids and mTORC1: from lysosomes to disease. Efeyan A\*, Zoncu R\* and Sabatini DM. *Trends in Molecular Medicine*. 2012. Review.
- mTOR: from growth signal integration to cancer, diabetes and ageing. Zoncu R\*, Efeyan A\*<sup>§</sup>, Sabatini DM<sup>§</sup>. *Nat Rev Mol Cell Biol*. 2011. Review.

**Applicants should send a motivation letter, CV and the contact information of three references directly to Alejo Efeyan (aefeyan@cnio.es).**