Research Project Proposal
Academic year 2020-2021

Máster en Investigación Biomédica

Project Nº 21 ASIGNADO	
Title: *Role of the autocrine IL-10/STAT3 cascade in the pro-survival signalling and anti-tumour immune evasion of diffuse large B-cell lymphomas*	
Department/ Laboratory *Department of Biochemistry and Genetics, Edificio de Investigación (Facultad de Ciencias)*	
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Summary

BACKGROUND: *Interleukin 10 (IL-10) is produced by a wide-variety of cells, including malignant cells of diffuse large B-cell lymphoma (DLBCL), and its role in tumor pathogenesis and development is extremely controversial, where some studies indicate that IL10 positively contributes to tumor growth and promotion, whereas other studies have shown IL10 having potent anti-tumor effects as well.*

GOALS: *Our proposal aims to elucidate in vivo the role of autocrine IL-10 secreted by DLBCL cells themselves in tumor growth, perturbation of the tumor microenvironment and impairment of anti-tumor immune control.*

METHODOLOGY: *To achieve this, we are following-up our previous work (Pascual et al., Blood 2019) developing a preclinical mouse model for ABC-DLBCL - the most aggressive subtype, which characterizes patients at higher risk for relapse/refractoriness -, to generate and characterize, here, a novel mouse that specifically delete IL-10 in the arising murine ABC-DLBCL tumors.*

We believe that a better understanding of the intracellular and autocrine mechanisms of pro-oncogenic IL10 function via STAT3 signaling - through the in vivo study of these novel compound mice and the use of human DLBCL cell lines and primary samples - will provide important information regarding the potential use of agents to target this and other potentially cooperating pathogenic pathways in DLBCL lymphomas.

yes	**X**	**Does the project include the possibility of supervised animal manipulation to complete the training for animal manipulator?**
no		