



Research Project Proposal
Academic year 2020-2021

Máster en Investigación Biomédica

Project Nº 30		
Title: Nonsense Mediated mRNA Decay (NMD) as an antigen immune-checkpoint		
Department/ Laboratory <i>Laboratory where the project will be carried out indicating Department, Area, Faculty, CUN, CIMA etc.</i> <i>Molecular Therapy Program. Lab 3.06. CIMA</i>		
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Summary <p>Despite the success of cancer immunotherapy in the clinic, there are still a considerable number of patients that do not respond to the treatment. Tumor inflammation associated with higher lymphocyte infiltration positively affects immunotherapy response. Tumor inflammation and cell infiltration are driven by tumor antigenicity among many other factors. During tumorigenesis, mechanisms to counteract the effector antitumor immune response are settled by the tumor including a process known as cancer immunoediting in which immune-selection pressures favor the elimination of immunodominant tumor antigens. There are several effective strategies to counteract immunosuppressive signals that affect T-cell activity; however, approaches to counteract antigen immunoediting or to potentiate antigenicity are mostly absent from the tumor immune therapeutic arsenal. As we aim to comprehend how NMD could shift tumor antigenicity, we propose to fulfil the following aims: I) Studying the nature of the immune response induced by NMD inhibition; II) Development of mouse tumor models of NMD-antigen immunoediting to understand the NMD-antigen modulation mechanism; III) Development of a clinically feasible strategy to reverse NMD-antigen immunoediting and to potentiate tumor antigenicity.</p>		
yes	<input checked="" type="checkbox"/>	Does the project include the possibility of supervised animal manipulation to complete the training for animal manipulator?
no	<input type="checkbox"/>	