



## Research Project Proposal

Academic year 2015-2016

<b>Project Nº 32</b>
<b>Title:</b> New immunostimulatory nanoparticle for cancer immunotherapy
<b>Department/ Laboratory</b> Laboratory of Onco-Immunology, Program of Immunology and Immunotherapy, CIMA.
<b>Director 1</b> Pedro Berraondo
<b>Contact:</b> <a href="mailto:pberraondol@unav.es">pberraondol@unav.es</a> 948194700 x3004
<b>Summary</b> In this project, the master student will produce and characterize novel immunostimulatory nanoparticles based on polyethylenimine. This cationic polymer will be used to complex several immunostimulatory molecules developed in the laboratory. The different nanoparticles will be evaluated in vivo. We will perform immunological studies and the best candidates will be tested in tumor models of colon carcinoma.
<b>References</b>  1) Antitumoral efficacy of DNA nanoparticles in murine models of lung cancer and pulmonary metastasis. Rodrigo-Garzón M, Berraondo P, Ochoa L, Zulueta JJ, González-Aseguinolaza G.  Cancer Gene Ther. 2010 Jan;17(1):20-7. 2) Induction of gp120-specific protective immune responses by genetic vaccination with linear polyethylenimine-plasmid complex. Garzón MR, Berraondo P, Crettaz J, Ochoa L, Vera M, Lasarte JJ, Vales A, Van Rooijen N, Ruiz J, Prieto J, Zulueta J, González-Aseguinolaza G. Vaccine. 2005 Feb 3;23(11):1384-92.
<b>POSSIBILITY OF PhD</b>  YES*  * (PhD grant required)