



Research Project Proposal

Academic year 2018-2019

Project Nº 13

Title: *mRNA based cancer immunotherapy with multifunctional nanoscaffolds*

Department/ Laboratory *Program of Immunology and Immunotherapy, CIMA.*

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Summary

Primary and secondary tumor resistance mechanisms limit the antitumor efficacy of immune checkpoint blockade. To overcome these mechanisms, multiple clinical trials are evaluating drug combinations. In this project, we will generate lipid nanoparticles loaded with a mixture of modified mRNAs to generate multifunctional nanoparticles in the liver with tropism for the tumor microenvironment. Experiments will be performed in vitro to evaluate the functional activity of the nanoparticles and in vivo in animal models with implanted tumor cell lines.

yes	X
no	

Does the project include the possibility of supervised animal manipulation to complete the training for animal manipulator?