



Research Project Proposal
Academic year 2021-2022
Máster en Investigación Biomédica

Project Nº 09 ASIGNADO

Title: Retromutation and knowdown of SgK496 in lung squamous cell carcinoma (LUSC) cell lines

Department/ Laboratory Laboratory where the project will be carried out indicating Department, Area, Faculty, CUN, CIMA etc.

Laboratory 2.02 Biomarkers and new therapeutic targets in lung cancer. CIMA

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Summary:

Lung cancer is the leading cause of death related to cancer worldwide.

In our lab we have developed a new lung squamous cell carcinoma (LUSC) mouse model. Two cell lines were derived from it: UN-SCC679 and UN-SCC680. We characterized them and we found SgK496 to be mutated in one of them.

We hypothesize that SgK496 could be an important driver gene in LUSC so we want to generate tools to evaluate our hypothesis.

For that aim, we will correct the mutation found in UN-SCC680 and we will assess the phenotypic changes in terms of tumorigeneity.

In parallel, we will knock down SgK496 in both cell lines using CRISPR-Cas9 technology and we will characterize their phenotypic features.

yes	
no	x

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