



**Research Project Proposal**

Academic year 2018-2019

**Project Nº 17**

**Title:** Do Inflammatory Polyps display Immune Context Associated with the Early Stages of Malignant Progression?

**Department/ Laboratory:** Department of Pathology (*Clínica Universidad de Navarra*)

**Director 1:** Carlos E de Andrea

**Contact:** ceandrea@unav.es

**Codirector:** Marta Abengozar Muela

**Contact:** mabengozar@unav.es

**Summary**

**Introduction:**

Inflammatory polyps (IP) are associated with chronic idiopathic inflammatory bowel disease (IBD). Here, IPs will be assessed for features of malignant change. The aims is to: assess the distribution of subpopulations and immune checkpoint molecules in the intratumor microenvironment as well as the stromal in IP and pre-malignant and malignant lesions.

**Method:**

Tissue sections of formalin-fixed, paraffin embedded specimens from sporadic adenomas (n=5), inflammatory polyps (n=5), and carcinoma developed at a recorded IP site (n=5) will be tested with multiplexed fluorescence immunohistochemistry assays designed to detect key immune cell markers such as: PD-1, CD137, CD4, CD8, FOXP3 (immune activation panel). From each case, a hematoxylin & eosin stained slide will be examined to evaluate the morphology of the lesion. Fluorescence images will be acquired on the Vectra-Polaris platform (Perkin Elmer). From each slide, five areas within the tumour region (except for small biopsy samples) will be chosen by a pathologist for digital analysis that later will be analysed with inForm software algorithms designed to accurately measure the co-localizations, and regulatory and activated T cell subsets.

yes	
no	X

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