

BCHM 421/422 – 2020/2021

Project Outline: Our lab has recently identified a critical role for skin-resident dendritic cells (DCs) in the modulation of sensory neurons and the generation of postoperative (inflammatory) pain. These cells secrete the chemokines CCL17 and CCL22, which act on their cognate receptor CCR4 on sensory neurons to cause pain. The successful applicant will work to understand what other factors are secreted by DCs, and how sensory neurons might modulate DC activation via neuropeptides.

Supervisor: Dr. Nader Ghasemlou

Project Title: Neuroimmune control of postoperative pain

Project Goals: Working with Dr. Jaqueline Silva (PostDoctoral Fellow, Pain Chronobiology & Neuroimmunology Lab), the applicant will work to understand how dendritic cells modulate pain outcomes in the skin in a model of post-operative pain.

Experimental Approaches: cell culture; flow cytometry; immunohistochemistry; fluorescence microscopy