BCHM 421/422 – 2020/2021

Project Outline: Circadian rhythms modulate individual cells as well as entire organs/systems. Our group is focused on understanding how these rhythms control neuroimmune interactions and the development/maintenance of chronic pain. We have recently generated animals lacking Bmal1, the master circadian controller, specifically in microglia and sensory neurons. Using these mice, the successful applicant will determine how rhythms in these cells modulates their response to inflammation and disease.

Supervisor: Dr. Nader Ghasemlou

Project Title: Circadian control of neuroimmunity and chronic pain

Project Goals: Working with Dr. Chloe Nobis (PostDoctoral Fellow, Pain Chronobiology & Neuroimmunology Lab), the applicant will work to understand how circadian rhythms in microglia and sensory neurons help modulate chronic pain.

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