



## Pilot Research Grant:

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### **Project Title: Defining and Understanding Neurologic Manifestations of Sjögren's Based on Ocular Surface Phenotype**

#### **Abstract**

Sjögren's disease (SjD) can present with a variety of ocular and systemic manifestations. DE symptoms are a known manifestation of SjD. But beyond dryness, it is recognized that many individuals with SjD have chronic ocular surface pain, which is multifactorial in nature and associated with peripheral and central nervous system abnormalities. Our central hypothesis is that the phenotype of ocular surface pain out of proportion to clinical signs of dryness is a harbinger for neurologic dysfunction in SjD. This hypothesis will be tested using a comprehensive protocol that consists of a clinical examination, quantitative sensory testing (Aim 1), and detection of neuro-inflammatory signatures in blood (Aim 2) in individuals with SjD grouped by ocular phenotypes (pain vs. dryness). Our results will examine how ocular phenotypes relate to neurosensory metrics in SjD. Along with forwarding understanding of SjD pathophysiology, these data can be used to develop clinically relevant diagnostic tests that subgroup individuals based on underlying mechanisms, an important first step to developing targeted therapies.