



Pilot Research Grant:

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Project Title: Pilot study of disease-specific expression modules in Sjögren's neutrophils

Abstract

This Pilot Research proposal will carry out RNA sequencing of immune cells isolated from the blood of 30 patients with Sjögren's syndrome and 10 healthy volunteers. The resulting large data set will be mined for new clues to the cause and development of Sjögren's syndrome. In particular, we will identify genes and gene sets that are turned on in Sjögren's syndrome, but not in the same immune cells from patients infected with the SARS-CoV2 (the coronavirus causing the current pandemic). We have chosen this comparator because the disease (COVID19) has many symptomatic and molecular similarities with Sjögren's syndrome, but obviously a completely different cause. By subtracting COVID19-induced genes and gene sets from those we find in Sjögren's syndrome, we expect to be left with the truly Sjögren's syndrome-specific genes. We have done this type of analysis in lupus patients and the results were very exciting. Will Sjögren's syndrome be similar?