



Dynamic Research Grant

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Project Title: Study of the prevalence of elevated *Mycoplasma pneumoniae* titers in Sjögren's and other autoimmune disorder-associated neuropathic postural orthostatic tachycardia syndrome (neuropathic POTS)

Abstract

Sjögren's is a known cause of small fiber neuropathy (SFN), which is present in 75% of all cases of POTS. *Mycoplasma pneumoniae* (MP), a common respiratory pathogen seen in up to 40% of cases of community acquired pneumonia, is known to cause immune-mediated neurologic disorders affecting the large nerves, but its effect of the small nerves ("small fibers") is unknown. In a preliminary analysis, we found elevation of MP titers in most individuals with SFN and POTS ("neuropathic POTS"), associated with Sjögren's and to a lesser extent, other autoimmune conditions.

We hypothesize that MP could, through an autoimmune mechanism, contribute to the creation of an autoimmune disease, an autonomic SFN, and consequently POTS. Proving this, would trigger clinicians to look for Sjögren's and other autoimmune diseases when MP antibodies are found in patients with neuropathic POTS, leading to an effective core treatment with immune modulation.