



Seshagiri Rao Nandula, PhD

School of Dentistry, University of Minnesota
Minneapolis, Minnesota

Project Title: *Role of type 1 interferon signaling in the development of Sjögren's syndrome*

Abstract: Sjögren's syndrome (SS) is an autoimmune disease characterized by chronic immune attack mainly against the salivary gland and lacrimal glands. In both humans and in the mouse models of SS an upregulation of type 1 interferons and interferon responsive genes are reported. We hypothesized that type 1 interferon response plays a role in the development of SS. We propose to knock down the type 1 interferon by delivering the siRNAs to IFNAR1 directly into the salivary glands through retrograde installation in NOD mice. A significant down regulation in the lymphocyte infiltration is expected in these mice and may lead to the delay in onset of the disease in NOD mice. This study will establish the direct role of type 1 interferons in SS development and give new directions to therapeutics.