**Expression and function of Toll-like receptors of B cells in Sjögren’s syndrome**

Sjögren’s syndrome (SS) is a rheumatic autoimmune disease, with focal lymphocyte infiltration and inflammation in exocrine glands, resulting in destruction of glandular tissue. B cells have an important role in the humoral part of the adaptive immune response where they carry out several functions; they produce antibodies, induce memory and secrete cytokines in addition to being antigen presenting cells. Toll-like receptors (TLRs) are pattern recognition receptors that recognize conserved pathogen-associated molecular patterns (PAMPs). These receptors have an important function as sentinels, by alerting the innate immune system of microbial infections. B cells are some of the immune cells that express TLRs. The aim of this project is to address the question whether stimulation of B cells via nucleic acid-sensing TLRs play a part in the pathogenesis of SS.

In this study TLR-7 and -9 expression in B cells from primary SS patients and healthy controls were analysed at both protein and mRNA level by flow cytometry and qPCR. B cells were stimulated with TLR -7 or -9 ligands, and cells surface markers and intracellular cytokine levels were examined by flow cytometry. The amounts of secreted cytokines after 24h stimulation were also examined by multiplex. Analyses of the endosomal protein UNC93b1, which is involved in transportation of TLRs from the ER to the endolysosome, were performed on RNA isolated from unstimulated B cells isolated by negative selection.