Interferon in Sjögren's syndrome and other systemic autoimmune diseases: A driver of disease pathogenesis and potential treatment target

1. Gene expression modules identified by modular transcriptional analyses of peripheral blood cells of primary Sjögren's Syndrome patients show besides upregulation of a type I interferon-inducible module also upregulation of modules induced by other types of interferons in a subgroup of the patients. (this thesis)

2. RNA- and DNA-sensing receptors contribute to chronic interferon production in systemic autoimmune diseases. (this thesis)

3. TBK1 is a treatment target in type I interferon positive systemic autoimmune diseases. (this thesis)

4. In primary Sjögren’s syndrome treatment with hydroxychloroquine downregulates the interferon-inducing RNA- and DNA-sensing pathway and type I interferon score. (this thesis)

5. Fatigue in Sjögren's syndrome is not caused by increased type I interferon activation. (this thesis)

6. The TBK1-ICOS signaling pathway is essential to form fully functional T_FH cells and disruption of this pathway leads to disturbed germinal center formation and high-affinity antibody development. (C. Pedros et al. Nature Immunology 2016, 17: 825-833)

7. Alterations in immune system function impact virtually every aspect of the central nervous system, therefore it is not surprising that therapies regulating immune system function can provide relief to psychiatric and neurodegenerative diseases. (A. Miller et al. Neuropsychopharmacology 2017, 42: 334-359)

8. Dietary components, like acetate and butyrate, affect the immune system and indicate the potential for medicinal foods or 'nutraceuticals' for the treatment of human diseases. (E. Marino et al. Nature Immunology 2017, 18: 552-562)


10. Statistical significance is the least interesting thing about the results. The results should be described in terms of measures of magnitude – thus not if a treatment affects people, but how much does it affect them. - Gene V. Glass

11. Research is what I’m doing when I don’t know what I’m doing. - Wernher von Braun

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