



CIS-06

## **Mechanisms of organ specific inflammatory/autoimmune diseases and the development of its control approach**

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### **Abstract**

We recently showed dysregulation of an IL-17-triggered positive feedback loop of IL-6 signaling, which involves the activation of NF- $\kappa$ B and STAT3 in fibroblasts, plays a role for arthritis development in mutant mice. Because this mechanism appears to enhance experimental autoimmune encephalomyelitis in wild-type mice, it might be a general etiologic process underlying other Th17 cell-mediated autoimmune diseases as well as chronic inflammatory diseases. In this project, our research is focused on analyzing in vivo homeostasis of the IL-6 loop on the molecular level to identify several molecular targets to efficiently control the enhancing level of the loop in vivo.