

Project 10 (P10): Characterization of ATP-receptors during virus infection

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Summary

Our research program focuses on the characterization of genes, which could be involved in the process of virus induced immunopathology. For this purpose we use the lymphocytic choriomeningitis virus (LCMV) as infection model. Upon infection, LCMV replicates in several cells, including dendritic cells, macrophages and hepatocytes. Presentation of LCMV antigens lead to a strong virus-specific CD8 T cell response. If virus infected hepatocytes are recognized by those virus-specific CD8 T cells, they will be destroyed via Perforin or FAS Ligand. This process releases intracellular ATP, which has the potential to activate so called ATP-Receptors. As immune cells express such ATP-receptor they could be influenced by this extracellular ATP. In this project the influence of those receptors on the outcome of infection should be analyzed.