

G-CSC Kolloquium

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„Virus-induced mouse models for autoimmune hepatitis and type 1 diabetes“

Abstract:

The etiology of human autoimmune diseases is largely unknown and the initiating immunogens are mostly undefined. It has become evident that a multitude of factors have to coincide for initiation and propagation of autoimmune disease. These involve a genetic predisposition, a repertoire of naïve lymphocytes capable of reacting with autoantigens and a precipitating, likely inflammatory, event that leads to lymphocyte activation. Molecular mimicry of self-components by infecting pathogens is one possibility of how environmental factors might be involved in the etiology of autoimmune diseases. In our animal models, virus-infection of mice transgenically expressing a target antigen in the pancreas or the liver results in the rapid development of type 1 diabetes or autoimmune hepatitis, respectively. We are focusing our research on the migration of autodestructive lymphocytes into the target tissue and the identification of critical inflammatory factors driving this process.