Abstract
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Human body hosts a large number of microorganisms – i.e. Archea, Eukarya, Bacteria and viruses. These microorganisms form microbiome, the total number of the microorganisms is ten times higher than the number of all human cells. Largest part of the microbiome is located in the intestine. The current development of molecular genetics revealed the close relationship between intestinal microbiome and health. Recent studies the most recent studies have pointed to a connection with the pathogenesis of various diseases. This dissertation is focused on the connection between intestinal microbiome and autoimmune diseases of the central nervous system. Research shows that the key factor are the ongoing changes in the composition of microbiome. These changes lead to increased immune stimulation and thereby to inflammatory proliferation.