

Endocrine activity of adipose tissue is implicated in the development of insulin resistance (IR). The thesis aimed to extend the knowledge of mechanisms contributing to IR.

Study I – To investigate the effect of acute hyperinsulinaemia and acute angiotensin II type 1 receptor blockade (ARB) on plasma concentrations and subcutaneous adipose tissue (SAT) expressions of selected adipokines in patients with type 2 diabetes and healthy controls

Study II □ To investigate the effect of 3□week telmisartan treatment on insulin resistance and plasma concentrations and SAT expressions of selected adipokines in subjects with metabolic syndrome and impaired fasting glucose (IFG)

Study III □ To investigate the effect of prolonged hypertriglyceridaemia on plasma concentrations and SAT expressions of selected adipokines in patients with type 2 diabetes and healthy control subjects

Study IV □ To assess the plasma concentrations and SAT expressions of selected adipokines in subjects with different categories of glucose intolerance Methodology: Hyperinsulinaemic□euglycaemic clamp, Intralipid infusion and saline infusion were used to simulate specific metabolic conditions in vivo in 4 groups: 8 young healthy men, 11 overweight/obese patients with type 2 diabetes, 12 age□matched healthy controls and 12 overweight/obese patients with IFG.