Cachexia is a term used to describe the poor status of a patient suffering from a benign disease (Crohn's disease, chronic heart and kidney failure) as well as from a malignant disease. Cachexia has an important impact on the survival and morbidity in patients with cancer. The aim of this study is to elucidate the pathophysiology in cancer cachexia with a special emphasis on pancreatic cancer. The dramatic weight loss in malignant diseases is due to anorexia resulting in malnutrition and is characterised by a progressive loss of muscle and fat tissue. Different cytokines like TNF-alpha, IFN-gamma, IL-1, IL-6 are involved in this process. Via the ubiquitin-proteasome pathway, in which also the proteolysis inducing factor (PIF) is involved, the majority of protein is degraded. In patients with cancer cachexia we find an elevated level of lipases, which indicates that rather fat catabolism and not reduced fat synthesis is the main factor in fat metabolism. The development of an effective (pharmacological) treatment is still the main challenge. As yet, none of the used therapies show a long-lasting effect on weight stabilisation and survival. Cachexia is an important issue, especially in pancreatic cancer; it influences the quality of life and has an important impact on survival. Today, there are only a few different pharmacological therapies used in the treatment of cancer cachexia, but each and every single treatment has failed to show a persistent effect on survival. The aim of research and treatment is to
interrupt the natural clinical course of cachexia.