Autor(en) des Beitrags:
Müller, Timo D.; Tschöp, Matthias H.; Benso, A.; Casanueva, F.F.; Ghigo, E.; Granata, R.

Titel des Beitrags:
Ghrelin - A Key Pleiotropic Hormone-Regulating Systemic Energy Metabolism

Abstract:
The gastrointestinal peptide hormone ghrelin was discovered in 1999 as the endogenous ligand for the growth hormone secretagogue receptor (GHSR-1a). Since its discovery tremendous research efforts have been directed at unraveling ghrelin's mechanisms of action, revealing that ghrelin is a pleiotropic hormone implicated in myriad of molecular signaling mechanisms. Accordingly, ghrelin is the only known circulating peripheral hormone with the ability to promote a positive energy balance by stimulating food intake while decreasing energy expenditure and body fat utilization. Moreover, beyond its ability to promote the release of growth hormone from the anterior pituitary, ghrelin stimulates gut motility and gastric acid secretion, modulates sleep, taste sensation and behavior, and regulates glucose metabolism. Due to ghrelin's ability to promote body weight gain and adiposity via centrally mediated signaling mechanisms, modulation of the endogenous ghrelin system is considered a promising strategy to treat individuals with pathologically reduced body weight, such as patients with anorexia nervosa or cachexia. The aim of this chapter is to summarize the current knowledge of how ghrelin affects systemic energy metabolism.

Zeitschriftentitel: Endocrine Development
Jahr: 2013
Band: