

Rubicon grant from NWO for Chun-Xia Yi

The aim of the Rubicon programme is to encourage talented researchers at Dutch universities and research institutes run by KNAW and NWO to dedicate themselves to a career in postdoctoral research. Rubicon offers researchers who have completed their doctorates in the past year the chance to gain experience at a top research institution outside the Netherlands (maximum of two years). Chun-Xia Yi will work for 24 months at the Genome Research Institute & Obesity Research Center, Department of Medicine, University of Cincinnati (USA)

The current obesity epidemic and co-morbidities such as type 2 diabetes is a primary health and economic threat. The ideal treatment of obesity-associated-diabetes should be to control the glucose homeostasis tightly and at the same time reduce body weight. A recent report from the host laboratory (NeuroEndocrinology, Obesity & Nutrition, NEON laboratory, led by Professor Matthias Tschöp) reported very promising results for a novel combined glucagon/glucagon-like peptide-1 (GLP-1) single molecule agonist in the regulation of body weight and metabolism (1). Glucagon is a hormone secreted from pancreatic α -cells, and is best known for its peripheral effects in response to low glucose levels and stimulates liver glucose production. However, glucagon is also able to stimulate lipolysis and act as a satiety factor in the central nervous system (CNS). Glucagon binds to its specific glucagon receptors (GCGRs). GCGRs are expressed in several brain areas that play key roles in the control of energy homeostasis. The present research proposal aims to combine targeted mouse mutagenesis and novel specific pharmacological tools to dissect the involvement of central GCGRs signaling in peripheral metabolic homeostasis, and provide essential new insights for the development of therapeutic strategies for the treatment of obesity and diabetes.