WWTF Project LS07-031

Therapy of Ischemia-Reperfusion-Injury by Heme Oxygenase-1 Induction in Skeletal Muscle and Ischemic Kidney

Abstract

Ischemia-reperfusion injuries (IRI) are a common complication in medicine. IRI occurs when blood supply to tissues or organs is temporally interrupted and then reintroduced again (reperfusion). In organ transplantation, IRI-induced injuries are a major predictor for function and loss of organs; the important role of IRI has also been shown in myocardial infarction, stroke and several surgical procedures.
Mechanisms leading to IRI are relatively well understood, although there is currently no existing therapy or prevention. The aim of this project is the development of an effective treatment using an endogenous enzyme system (heme oxygenase-1) that has been shown in recent years to be a major protective gene in ischemia-reperfusion injuries.

Keywords:
ischemia-reperfusion-injury, heme oxygenase-1, GT length polymorphism, hemearginate, kidney transplantation, skeletal muscle, functional MRI

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Further links about the involved persons and regarding the project you can find at
https://archiv.wwtf.at/programmes/life_sciences/LS07-031