



New medicinal product for peripheral artery occlusive disease (PAOD) therapy

Problem to be solved

PAOD ranks among the most frequent chronic diseases worldwide, with prevalence still increasing. Its incidence is positively correlated with aging, and the risk of developing coronary heart disease is very high. Common therapies comprise mechanical interventions such as angioplasty, which are not suitable for a considerable number of patients. Therefore a new approach is being developed, achieving an increased growth of collateral vessels with allogenic cell transplantation. However, this entails several risks: the rejection of the foreign cells, the transmission of pathogens, and tumor formation, using stem cells.

Novel approach

The new pharmaceutical consists of the body's own cells, which are modified *ex vivo* and reintroduced. Important for the efficacy is the immunization of the individual before the cells are injected. This leads to growth of collateral vessels, which results in an almost normal blood flow. The potential of the method has already been shown in animal models (mice, rabbits – in progress: pigs).

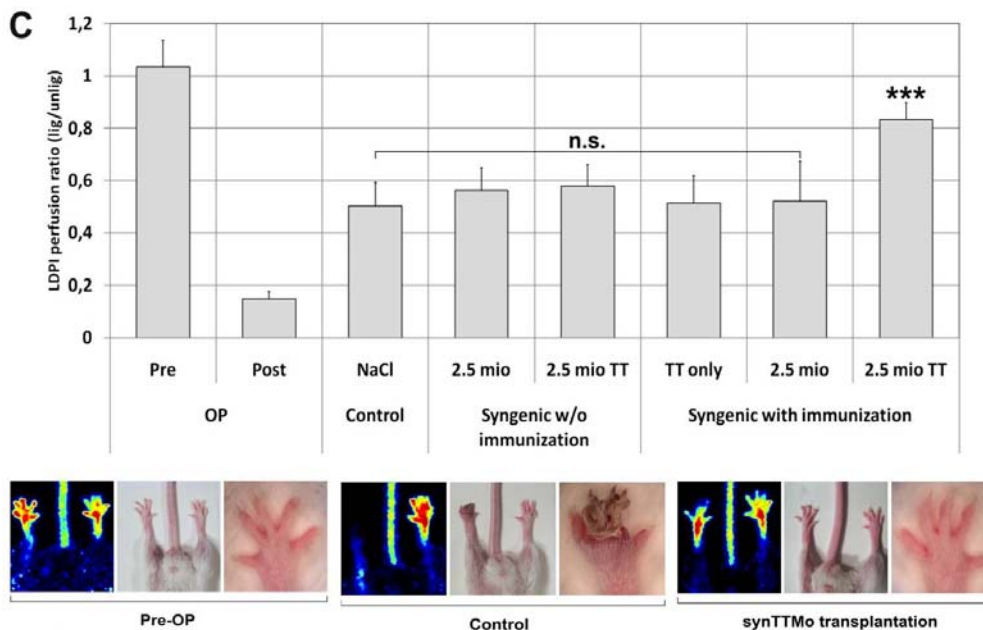


Figure: Model of hind limb ischemia in mice.

TT – modified antigen presenting cells (antigen-loading by incubation with a specific antigen, the same as for immunization)

Application

We are seeking a cooperation partner for further development of the therapeutic application in humans and for implementation into clinical routine.

Patent situation

A PCT application has been filed.

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