WWTF Project LS11-008

A new treatment concept for lung injury

Abstract

Acute lung injury (ALI/ARDS) is a major problem at intense care units with mortality rates in the range of 40%. The main functional impediment in this disease resides at the alveolar-capillary barrier, which normally restricts fluid accumulation within the alveolar space thereby facilitating efficient gas exchange. This barrier is dysfunctional in ALI/ARDS, mainly through pathologic activation of RhoGTPases. Current therapies are only symptomatic, targeted therapies are missing. This project aims to develop new tools to improve alveolar-capillary barrier function through targeted interception of pathologic activation of RhoGTPases. Our unique position consists of the experienced team, access to a new and targeted inhibitor of RhoGTPases, and an unmet medical need with no approved drug on the market. Results of this work will serve as a starting point for a pharma-partner to initiate cost-intensive regulatory preclinical drug development.

Keywords:
lung injury, RhoA, GEF, capillary-alveolar edema, barrier dysfunction

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Status: Completed (01.08.2011 - 30.04.2016) 57 months

Funding volume: EUR 492,800

Further links about the involved persons and regarding the project you can find at
https://archiv.wwtf.at/programmes/life_sciences/LS11-008