

Vasculature in PF

Involvement of the pulmonary vasculature in the development of lung fibrosis

Programm / Ausschreibung	FORPA, Forschungspartnerschaften NATS/Ö-Fonds, FORPA OEF2019	Status	abgeschlossen
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Keywords	Lung vasculature, pulmonary fibrosis (PF), chronic lung diseases		

Projektbeschreibung

The central hypothesis of this project is that aberrant activation of endothelial cells (ECs) actively contributes to the development of fibrosis in various chronic lung diseases and that targeting this dysregulation ameliorates the extent of fibrosis. The overarching aim of the current proposal is to comprehensively evaluate changes in the endothelial compartment and resulting consequences in the course of lung fibrosis.

Using different approaches, we will determine pulmonary vessel density, the extent of EC proliferation and apoptosis and the resulting effects on fibroblasts. Complementary, the vasculature will be analyzed in vivo using an EC-lineage tracing mouse model of pulmonary fibrosis (PF). This way, we aim to unveil a so far unknown function of ECs in PF, which may represent a new innovative target to stop or even reverse fibrotic processes, laying the foundations for novel and more efficient targeted therapy.

Projektpartner

- Ludwig Boltzmann Gesellschaft GmbH
- Ludwig Boltzmann Gesellschaft - Österreichische Vereinigung zur Förderung der wissenschaftlichen Forschung