

Popular scientific project description for project funded by Ekhagastiftelsen

Popular scientific project description is to be submitted within 2 months of project grant.

Application number:	2019-79
Project title:	Systems biology of COPD subgroups based on Western and Chinese diagnosis
Receiver of grant (name, address):	Herman van Wietmarschen Louis Bolk Institute Bunnik The Netherlands
Contact / project manager:	Herman van Wietmarschen
Project start (yyyy-mm-dd): *	2020-01-01
Project end (yyyy-mm-dd): *	2022-06-30
By Ekhagastiftelsen granted sum:	1 330 000 SEK

Project description: (max 150 words)

Chronic Obstructive Pulmonary Disease (COPD) is a progressive life-threatening lung disease with a global prevalence of 251 million cases that causes breathlessness on exertion, chronic cough and predisposes to exacerbations and serious illness. It is a very heterogeneous disease with various co-morbidities and extra-pulmonary manifestations leading to differences in response to treatment. Therefore, a personalized medicine approach could greatly benefit patients. In this project clinically relevant COPD subgroups are identified and validated using Traditional Chinese Medicine knowledge of COPD. The clinical value of these subgroups is then studied by analysing data of 74 COPD patients on physical activity, clinical variables, nutritional status, TCM symptoms and a metabolomics profile of signalling lipids. Biological mechanisms of COPD subgroups are explored. Project results are used to inform treatment guidelines and develop personalized treatment programs including exercise, nutrition and treatment advice for COPD.

* Dates for project start and end should be the dates for which the grant is received (Not dates for total project if longer than period for which grant is received)