REPO-TRIAL COMMENCES ITS HEART FAILURE DRUG REPURPOSING TRIAL

Valencia and Maastricht, May 02, 2023 – REPO-TRIAL, the EU-funded Horizon2020 project developing innovative in silico-based approaches to improve the efficacy and precision of drug repurposing trials, has randomised the first patients in REPO-HFpEF II, a Phase IIa clinical trial investigating the treatment of a type of chronic heart failure characterised by stiffness of the left ventricle. HFpEF is common in the elderly and diabetics and has no survival-prolonging treatment.

REPO-HFpEF (Mechanism-based drug REpurPOsing in a subtype of Heart Failure with Preserved Ejection Fraction; EudraCT number: 2022-003111-28) is exploring a combination of two drugs approved for unrelated medical uses (vericiguat and folate) and another pharmacological agent, L-citrulline. It is based on insights of pathway medicine and uses mechanism-based patient selection criteria based on the presence of elevated plasma levels of NOX5, a NADPH oxidase, which was shown by the REPO-TRIAL investigators at Maastricht University to be associated with HFpEF in a subset of patients.

REPO-HFpEF II was co-designed at the University of Halle (Germany) and is being conducted at the University Hospital of Valencia, where patient enrolment began in February 2023. It will primarily evaluate the safety of the triple combination, but has secondary and exploratory endpoints that will capture changes in relevant efficacy outcome parameters after 12 weeks of treatment.

Prof. Harald Schmidt puts this trial into perspective: “If positive, the REPO-HFpEF II trial will not only mean a revolution for HFpEF patients but also represent clinical proof-of-concept for a new approach to disease and treatment, i.e., to no longer define disease by symptoms in organs but by underlying causal molecular mechanisms. This then allows curative therapy instead of chronically reducing only symptoms, and all of this with high precision. We expect every patient selected to benefit from his or her treatment, in contrast to most drugs currently on the market.”

REPO-HFpEF II is covered by a patent application claiming the diagnosis and treatment of potentially responsive HFpEF patients based on their NOX5 levels. Inventors are from the universities at Maastricht and Halle and from H.M. Pharma Consultancy (Vienna), which is responsible for REPO-TRIAL strategic patenting efforts.

REPO-TRIAL, coordinated by the University of Maastricht (The Netherlands) has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 777111. REPO-TRIAL commenced started in February 2018, and will conclude in January 2024.

For inquiries, please contact the REPO-TRIAL coordinator Prof. Dr. Harald H.H.W. Schmidt: hschmidt@ppmlab.net