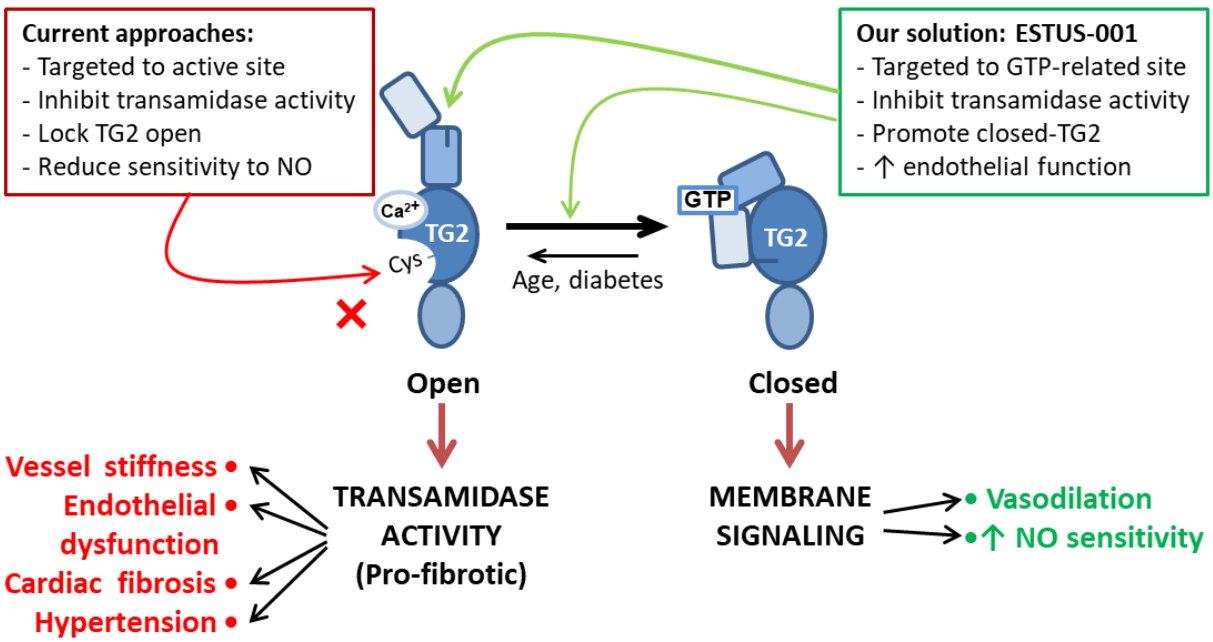
Novel therapeutics for cardiovascular complications in diabetes and aging

Biotech & Pharma

"Turning an overactive and harmful enzyme into an ally to improve the vascular health of patients"

Despite current treatments **68%** of diabetic patients age 65 or older **die from cardiovascular diseases.** To meet this therapeutic need, **Tissue Transglutaminase** (TG2) has emerged as a promising **new target**



Technology Description

Tissue Transglutaminase (TG2) is an enzyme with two faces: its open conformation has pro-fibrotic effects, being overactive in diabetes and aging, and participating in several harmful processes in the cardiovascular system, while in its closed conformation it increases cell survival and facilitates vasodilation. We have observed that the molecule ESTUS-001 can induce the closed conformation of the enzyme, preventing the deleterious effects of the open conformation while increasing the sensitivity of the vasculature to natural vasodilatory signals, particularly in aging and diabetes.

Intellectual Property Rights

PCT application filed August 6, 2019

Team

MD. and PhD, Ulf Simonsen

Inventor and Scientific Development, Professor

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Chemical Development

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Commercial Development

Current State

Proof of concept with known molecule ESTUS-001 using different bioassays that cover the cellular, the tissue and the organism levels, additionally we have preliminary data confirming the translation of these findings to human tissue. Optimization of the drug candidate and characterisation of it is currently ongoing.

Supported by the BioInnovation Institute, Copenhagen

Call to action

We are looking for investors to enable us validating our vasoprotective approach on important complications such as diabetic nephropathy and kidney fibrosis. This will greatly increase the impact of our mechanism and help us move forward to Toxicology, PK/PD, etc. in order to get ready for clinical trials. The current goal is to form a spin-out company by 2021.

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