

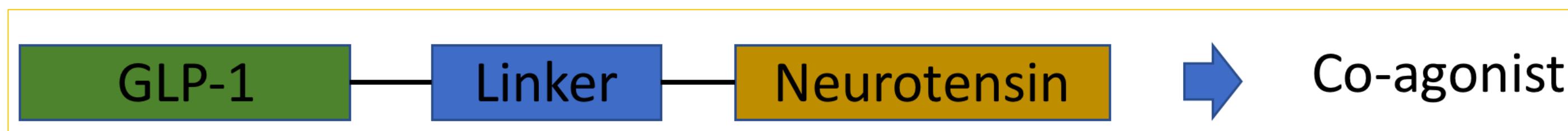
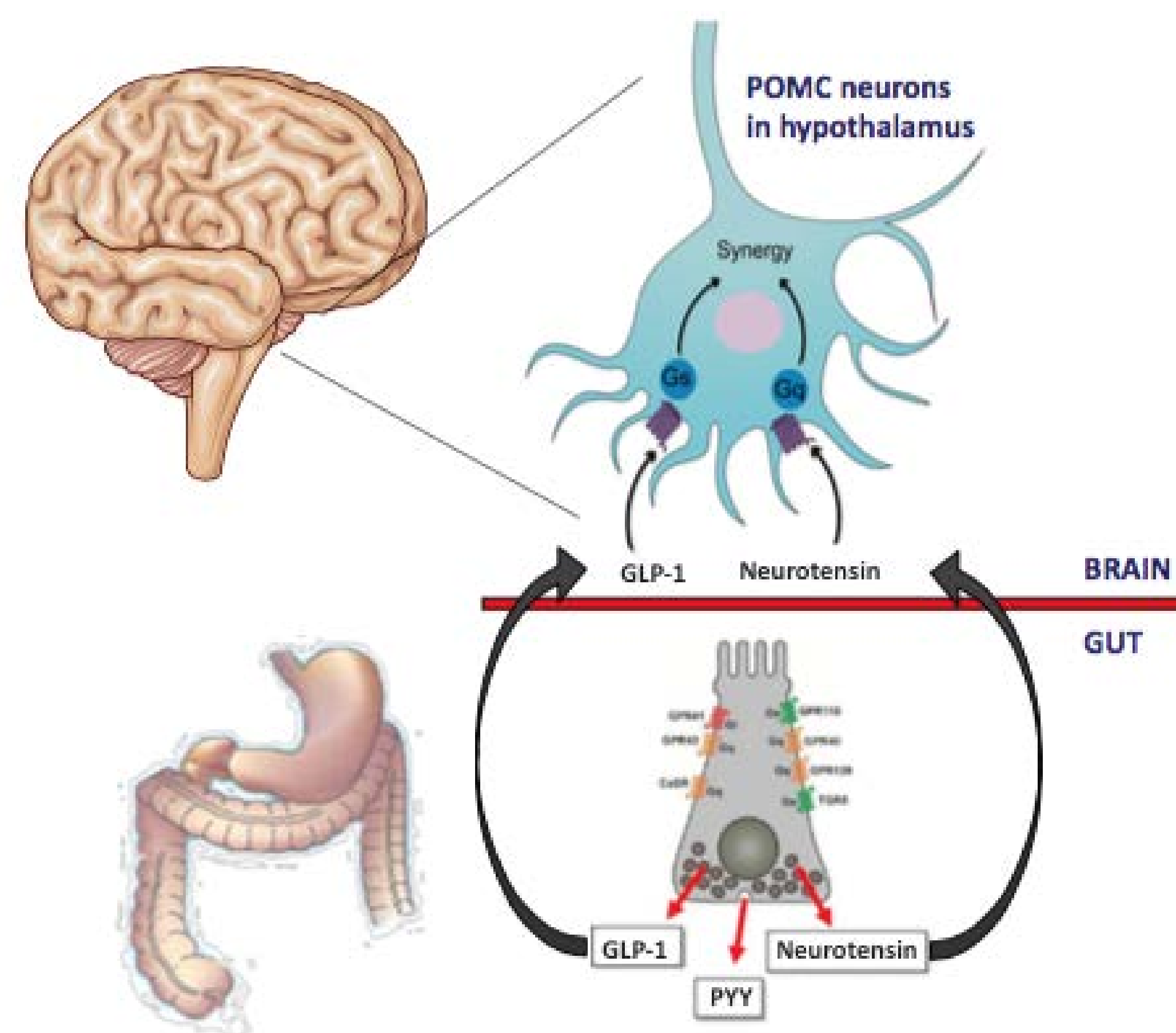
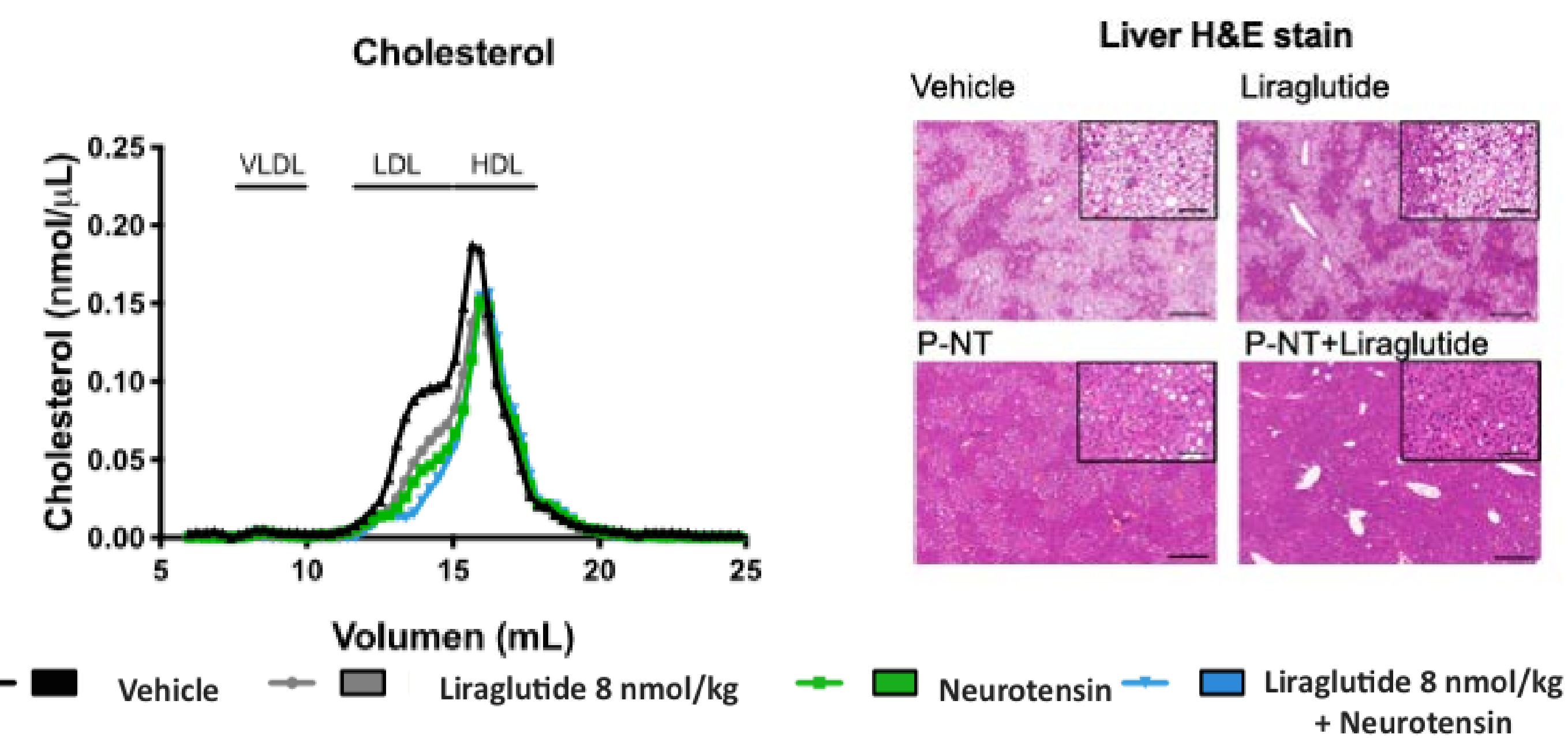
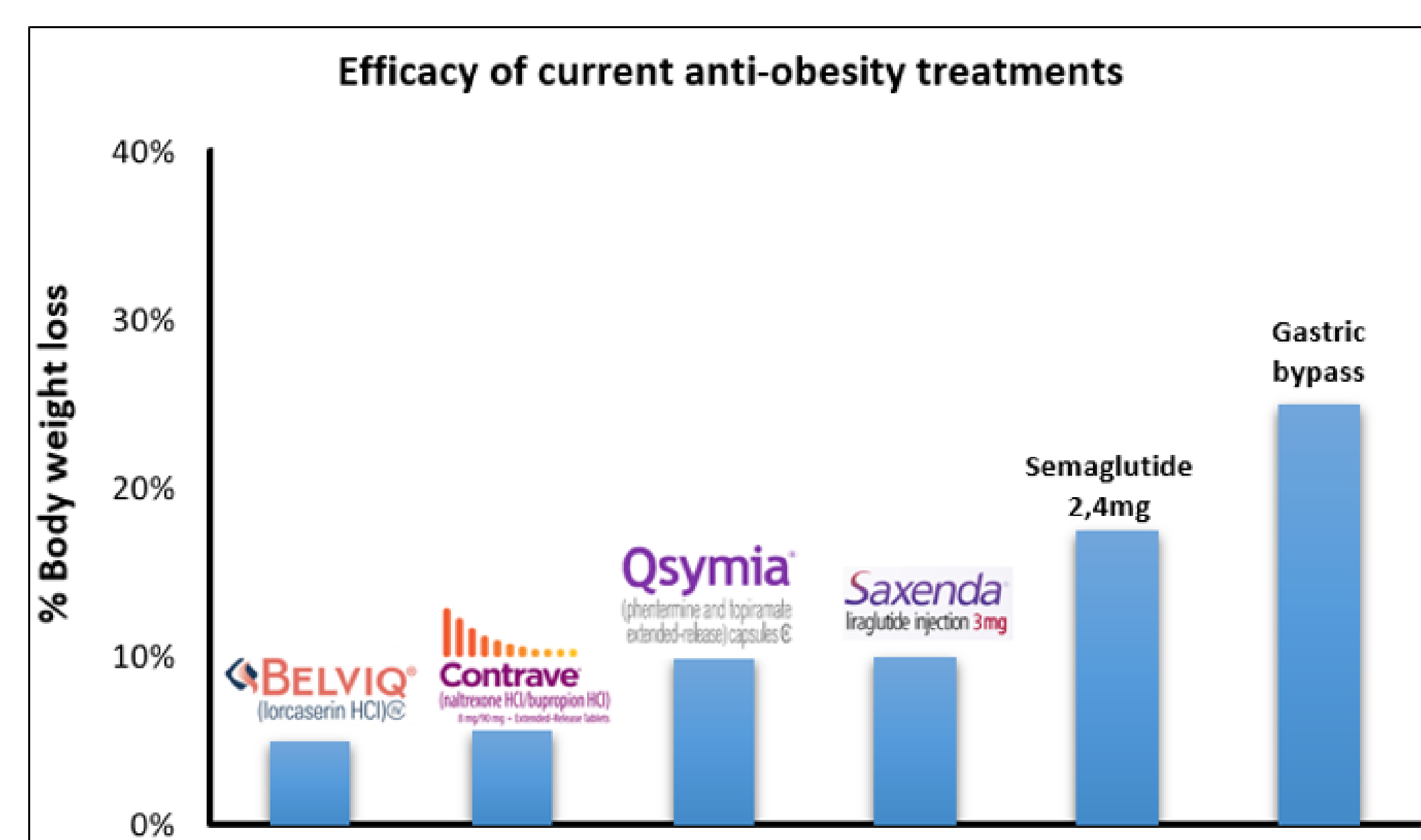
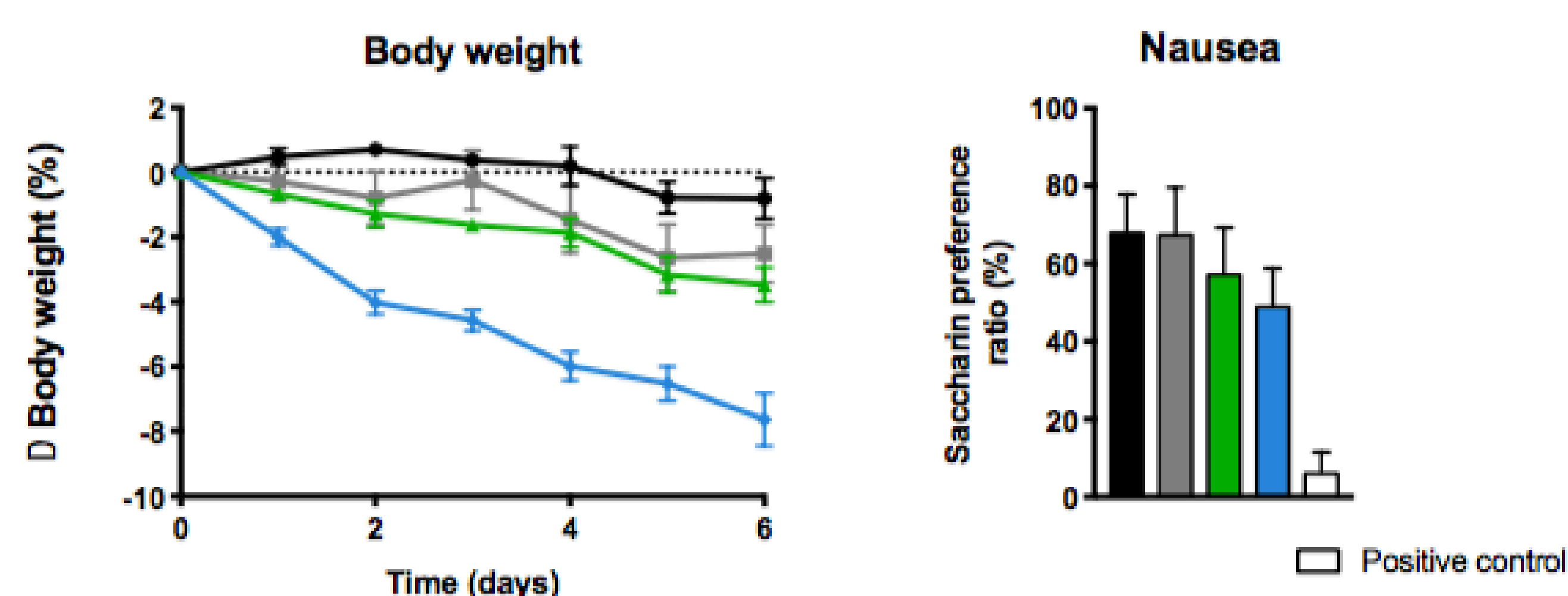
Obesity targeted by a GLP-1 and NT receptor co-agonist

Targeting multiple pathways reverses obesity

Combination treatment with subthreshold GLP-1 analog and neurotensin synergized to amplify body weight loss and improve life-style diseases

Obesity facts

- 650 million adults are obese (BMI>30kg/ m²)
- 41 million children are obese
- Bariatric surgery results in 20-25% weight loss (10yrs follow up)
- Current pharmacological treatments result in an average weight loss of 5-10%
- The market for safe and effective pharmacological anti-obesity treatment is enormous



Technology Description

We have combined a long-acting neurotensin and subthreshold liraglutide, which synergize to amplify anorexic signaling and reduce body weight in obese mice with improved tolerability compared to therapeutic doses of liraglutide. Our goal is to develop anti-obesity drugs with minimal side effects. Our approach is simultaneously activating two complementary pathways in appetite regulating centres of the brain in order to obtain sufficient weight loss. We have developed peptide based co-agonists that act synergistically to reduce food intake and/or increase energy expenditure leading to body weight loss. Targeting multiple signalling cascades not only increases efficacy but also reduces effective doses thereby decreasing adverse effects. In addition to the decreased bodyweight we have data indicating a specific decrease in fat accumulation in the liver.

Intellectual Property Rights

Priority patent application filed December 4, 2018

Team



Professor
Birgitte Holst Lange
Inventor



Post doc
Cecilia Friis Ratner
Inventor



Research assistant
Alexander Jakobsen

Current State

We have performed a Proof-of-concept clinical trial on obese volunteers using combination treatment with GLP-1 and neurotensin, which we will finalized Q4 2020. Furthermore, we are currently optimizing our co-agonist in order to obtain a better pharmacokinetic profile. Current funding situation: We have obtained Pre-seed funding from the Novo Nordisk Foundation, 2019.

Business opportunity and Call to action

- We seek collaborators within protein chemistry to optimize our co-agonists
- We plan to found a university spin-out in Q2 2021
- We are looking for an experienced business developer and advisory board members to support our commercialization of the invention
- We seek funding and investors to take our lead peptide candidates through pre-clinical development and into clinical Phase I trial

