# **HD** Immune

# Development of a new Immunotherapy for Huntington's disease patients

**Stage:** pre-seed stage **Industrie:** Biotech

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#### Our mission

The aim of *HD* Immune is the development of therapeutic human antibodies targeting the toxic and mutated form of HTT protein (mtHTT) which is the cause and driver of the hereditary neurodegenerative disorder, Huntington's disease (HD, Chorea Huntington).

### About Huntington's disease (HD)

HD is a rare neurological disease with fatal outcome that cannot be cured since there are no drugs available. Because there is an unmet medical need, our aim is to develop a drug that can slow down disease progression and improve clinical symptoms.

We intend to use our proprietary knowledge for the development of a new antibody-drug that could have the potential to become a first-in-class therapeutic.

#### The HD Immune approach

Interfering with extracellular mutated Huntingtin protein by specific antibody has the potential to block/reduce intercellular mtHTT transmission and spreading of HD pathology. This is expected to modify disease progression in the brain and periphery in HD patients.

#### HD Immune development

Based on the date and knowhow achieved in *in vitro* and *in vivo* POC studies (\*) the objective of the *HD* Immune program is the development of a humanized therapeutic antibody molecule targeting mutated Huntingtin protein.

The *HD* Immune Huntingtin lowering paradigm for systemic and peripheral treatment is expected to provide a new, disease modifying modality as alternative to current CNS targeting strategies which are under exploration.

(\*) Bartl et al. 2020; Bartl et al. 2023 in prep.

## USP Immuno/Antibody Therapy and Huntington's disease

- An immunotherapy targets the pathological HTT protein directly
- Immunotherapies are well characterized medications with years of experiences in terms of development production and safety
- Preclinical POC studies with mouse antibody treatments show benefits in vivo
- Antibody humanization procedures are well developed procedures with high success rates

#### HD Immune team and network

Stefan Bartl, PhD, Molecular Biologist, 20 years experiences in Biotech, main fields are HD Neuroscience and Immunology

Lionel Wightman, PhD, Virologist, founder and co-founder of Biotech Start-ups

International cooperation: UCL, Orlando, FL, USA; Univ Laval, Quebec, CAN; UBC, Vancouver, CAN