

Ubiquitin Independent Degradation

A New Targeted Protein Degradation approach

To design innovative treatment for pathologies involving altered proteins, unwanted protein or protein accumulation.

The Technology

- An early-stage targeted protein degradation technology able to **short-circuit the Ubiquitin Proteasome System (UPS)**.
- New degrader identified that binds to a **26S proteasome component**, leading to protein degradation without the need for **E3 ligases of ubiquitination**.
- The approach is **highly specific** to a particular protein and **independent of ubiquitin because** of its direct interaction with the proteasome.
- The technology is **very early stage**: ongoing development is focusing on the adaptation to human proteasome (initial discovery was in plant domain).



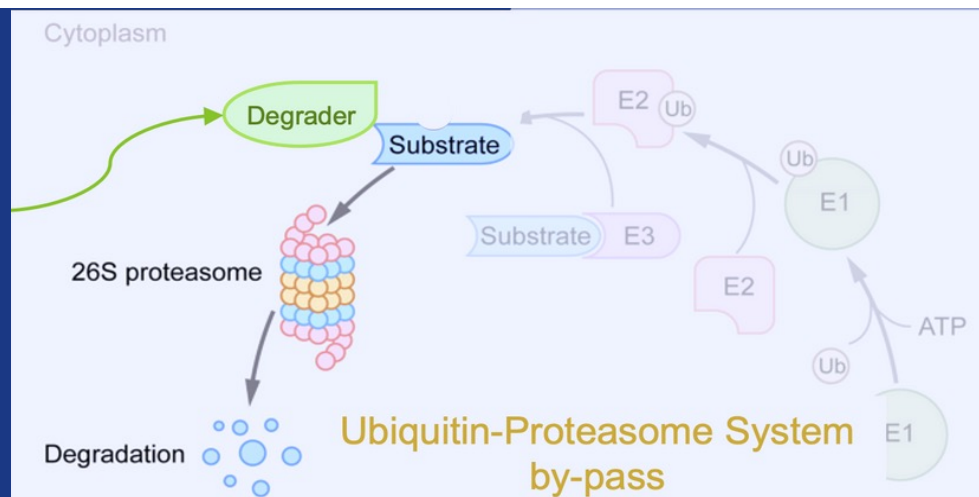
Protein accumulation or UPS dysfunction are involved in multiple pathologies such as chronic diseases, degenerative diseases and cancer.

NOVELTY

Degrader binds directly to 26S proteasome

Prioritization criteria have been selected such as:

- criticality of protein degradation
- clinical need
- technological feasibility



Figures from Zhao, L., Zhao, J., Zhong, K. et al. Targeted protein degradation: mechanisms, strategies and application.

Timeline & Next Steps

Assess the relevance of prioritized indications: such as cancers or neurodegenerative diseases.

Identify the protein to focus on to develop the technology with human proteasome.

Draw the technological developments involved by the prioritized indication and protein.

Contact



Damien Caubrière
TSL Ventures Co-Ordinator
Damien.Caubriere@tsl-lab.com