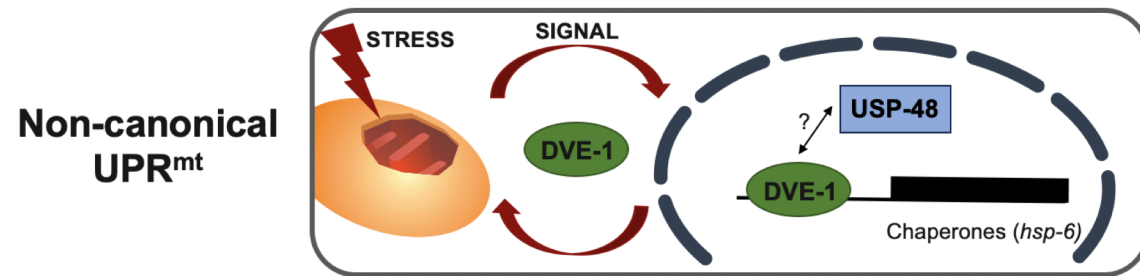


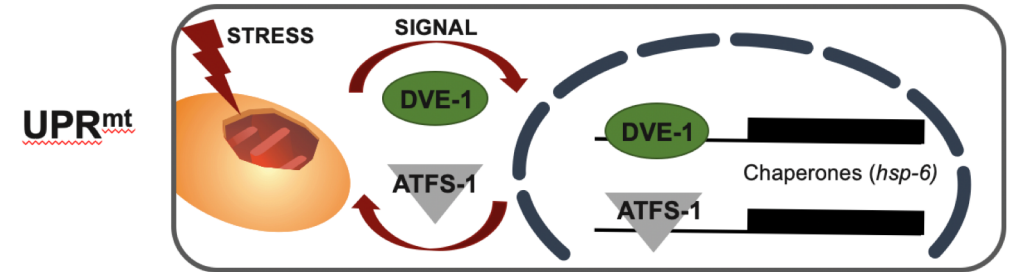
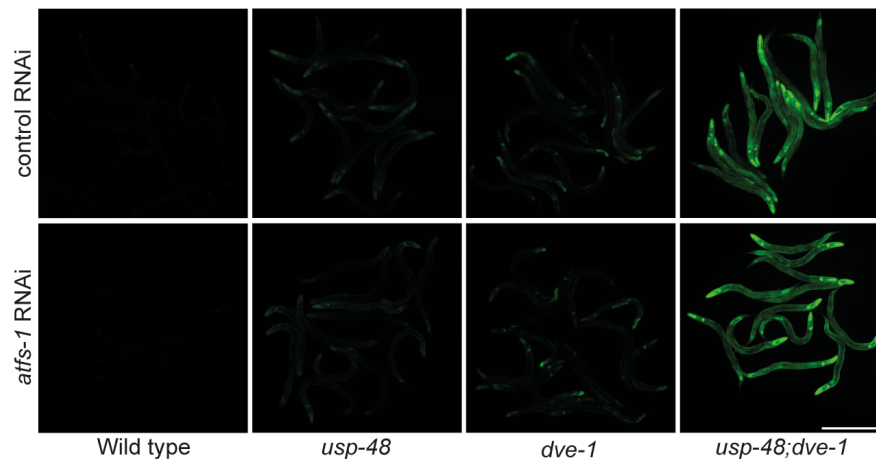
# HISTONE DEUBIQUITINATION IN MITOCHONDRIAL STRESS AND LONGEVITY

## Objetives:

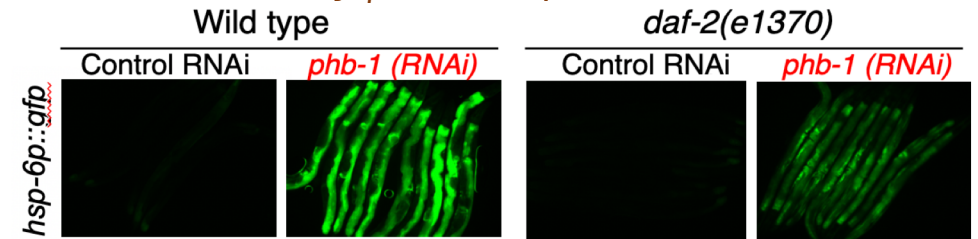
- Analyse the mitochondrial functionality of *usp-48* mutants in wild type animals and *daf-2* insulin mutants upon mitochondrial stress
- Analyse CRISPR GFP::USP-48 expression and nuclear localisation upon stress during aging
- Study the interaction of USP-48 and DVE-1 in the regulation of the mitochondrial unfolded protein response (UPR<sub>mt</sub>) in wild type animals and insulin mutants upon mitochondrial stress



*Phsp-6::GFP*

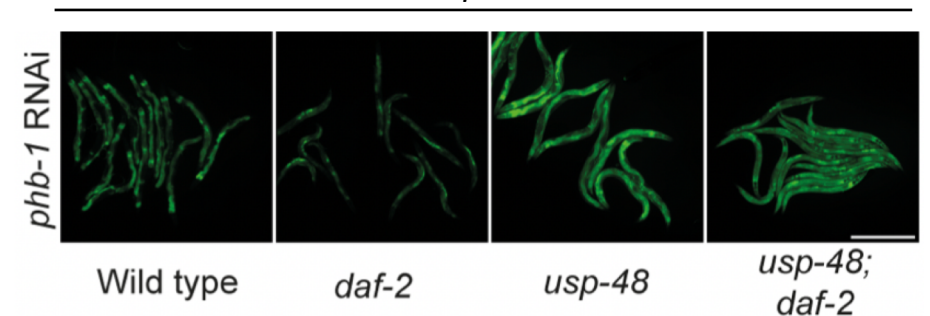


*daf-2* mutants suppress the UPR<sub>mt</sub> induced by *phb-1* depletion



*usp-48* mutants suppress the attenuated UPR<sub>mt</sub> in *daf-2* mutants

*Phsp-6::GFP*



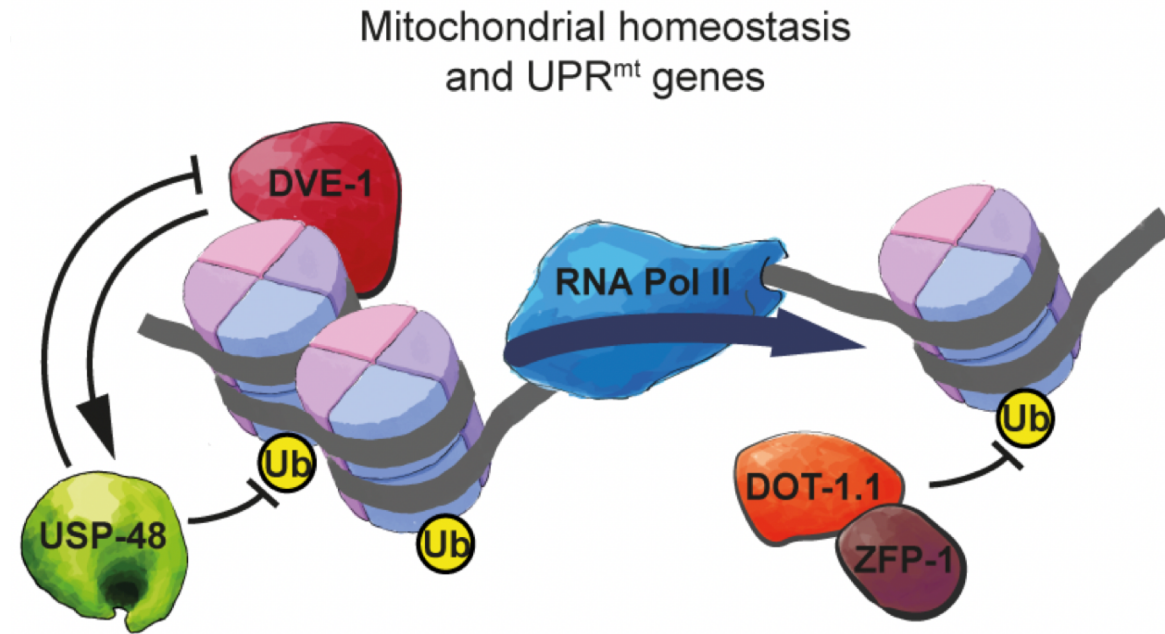
# HISTONE DEUBIQUITINATION IN MITOCHONDRIAL STRESS AND LONGEVITY

## Objetives:

- Determine the role of H2A/H2B ubiquitination in the UPR<sup>mt</sup> and the implication of USP-48. ChIP-qPCR using specific antibodies against ubiquitinated histones.

## Information TFG:

- Trabajo de contenido científico-técnico con tareas de carácter experimental
- Within the frame of the Project PID2022-139772NB-I00.
- [doi.org/10.3390/cells7120238](https://doi.org/10.3390/cells7120238)
- <https://www.nature.com/articles/nature08466>
- <https://academic.oup.com/g3journal/article/9/7/2287/6026770>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3784254/>



**TUTORES:** Marta Artal Sanz([martsan@upo.es](mailto:martsan@upo.es))

Jesús Fernández Abascal([jferaba@upo.es](mailto:jferaba@upo.es))

Área Bioquímica y Biología Molecular. Dpto. Biología Molecular e Ingeniería Bioquímica @ CABD