

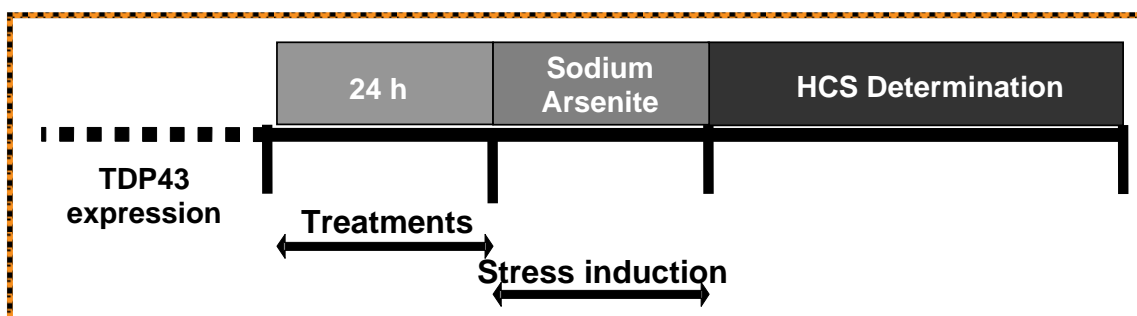
**ALS IN VITRO MODEL**

**TDP-43 Stress Granules Assay**

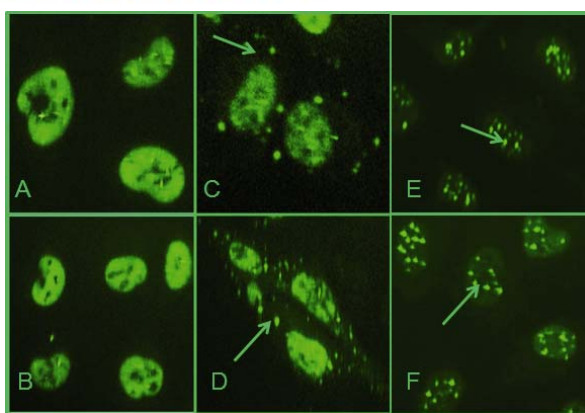
**OUR MODEL**

This novel fluorescence cell-based assay allows the quantification of pathological TDP43 globs into the nucleus and cytosol.

Cells will be induced to express the TDP43-tGFP. After that, the cells will be incubated with the compounds to be tested during 24 hours using Arimoclomol at 10 uM as positive control. Then, the cells will be treated with 250 uM sodium arsenite. The TDP43-tGFP nuclear globs will be quantified using the BD Pathway HCS Reader and Attovision Compartmentalization Software.



**RESULTS**



**Cellular fluorescence redistribution after sodium arsenite treatment.** Representative images of the negative controls show a nuclear distribution of the fluorescence (A,B). However, after sodium arsenite treatment the phenotype turns into a cytosolic vesicular pattern corresponding to stress granules (C,D) and into an intensive nuclear globs pattern (E,F).

