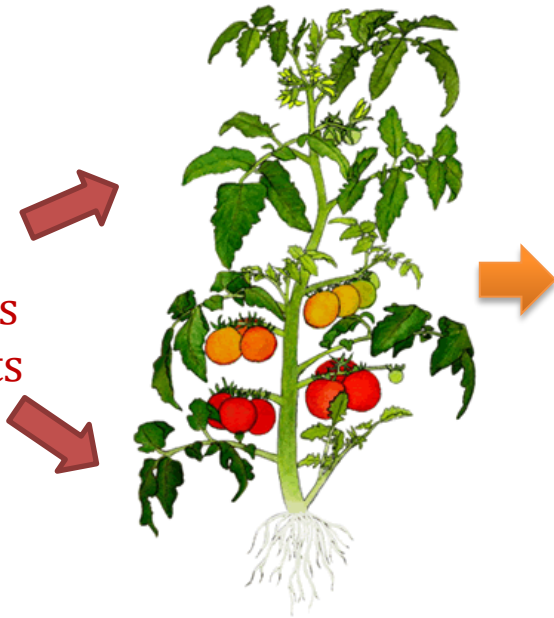


33° PhD course in BIOTECHNOLOGY



Systemin networks in tomato plants defense responses

Biotic and/or
abiotic stressors
affect the plants



Tomato plants
modulate defense
mechanisms against
biotic stresses
through the
expression of
Prosystemin

Prosystemin
overexpression in
transgenic
tomato plants
triggers a wider
range of defense
responses

Main goal of the project

Understanding the molecular mechanisms through which Prosystemin
modulates multiple defense responses in tomato

Workflow

Prediction *in silico* of Protein-Protein interactions (PPI) occurring in Prosystemin overexpressing plants



**Definition and analysis of Prosystemin's interactions.
Design a network of proteins**



Experimental validation of a number of interactions with particular interest on PPI involving transcription factors



Biotechnological applications

Understanding molecular mechanisms of tomato defense responses



Maximize durable resistance to environmental challenges



Reduce the use of pesticides in agricultural practice

