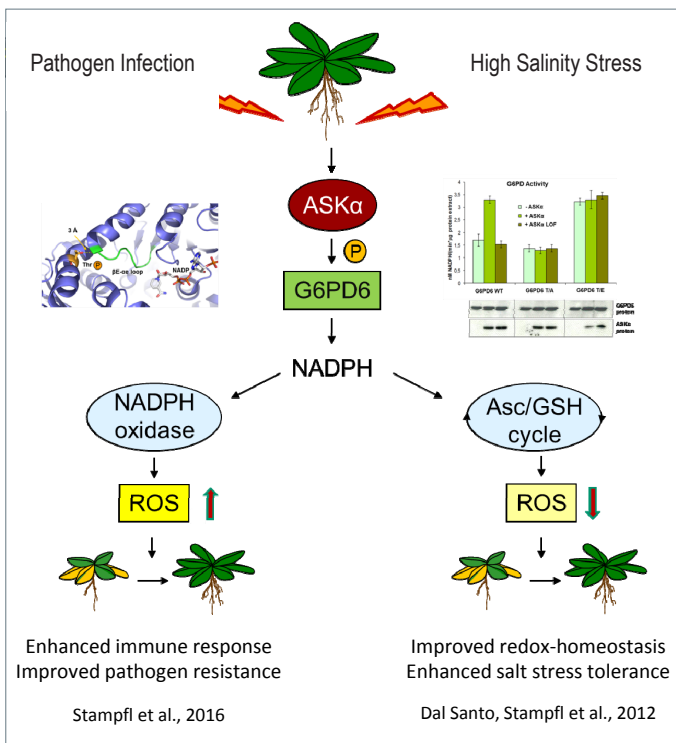




IMPROVING PLANT VIGOR



Plants frequently encounter adverse growth conditions. Drought, extreme temperatures, high salt concentrations, heavy metal contamination of soils, and pathogen pressure are examples of environmental constraints that can adversely affect agronomic traits, grain yield and/or grain quality.

Our research focuses on how signal transduction regulates the coordinated response of metabolism and chromatin function (gene expression), which ultimately determines whether a plant is able to acclimate to fluctuating and/or adverse conditions. We apply a combination of genetic, biochemical and physiological approaches to understand the molecular mechanisms underlying stress tolerance, and explore the potential of such approaches for innovative crop improvement strategies.

WE OFFER

- Assessment of plant vigor under various environmental conditions
- Mode of action analyses
- Cellular redox status analyses
- Evaluation of metabolic enzyme activities

// Plant growth and development is challenged by pathogen infections and environmental stresses such as contamination of soils by salts. The regulatory module consisting of the protein kinase ASKα and the metabolic enzyme G6PD links stress-induced signal transduction to metabolic adjustments and is vital for plant resistance to abiotic and biotic stress.

AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH

Claudia Jonak

T: +43(0) 50550 4632

Konrad-Lorenz-Straße 24 | 3430 Tulln, Austria

claudia.jonak@ait.ac.at | www.ait.ac.at