

Plant Systems Biology and Evolution Lab

Gene Function Prediction and Annotation



APPROACH

THEMES

COMPUTATIONAL BIOLOGY

- 21 tools, databases and algorithms
- Python, machine learning
- Large-scale, kingdom-wide analyses

MOLECULAR BIOLOGY

- Physiological experiments
- Multi-omics data generation

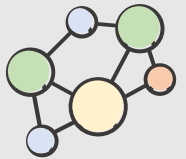
STRESS RESILIENCE

Knowledge: Mechanism of stress response
Application: Crop improvement



EVOLUTION OF GENE MODULES

Knowledge: Evolution of gene and regulation
Resource: Transcriptome and metabolome atlases



SPECIALISED METABOLISM

Knowledge: Prediction of biosynthetic pathway
Application: Crop improvement and plant-based therapeutics

