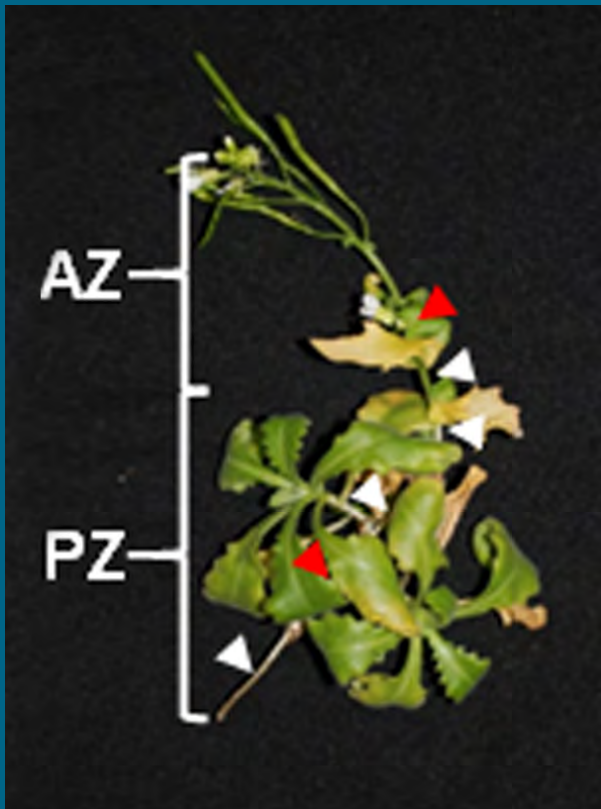


Zonal Differences in Nutrient Storage and Secondary Growth in the Perennial Model *Arabis alpina*



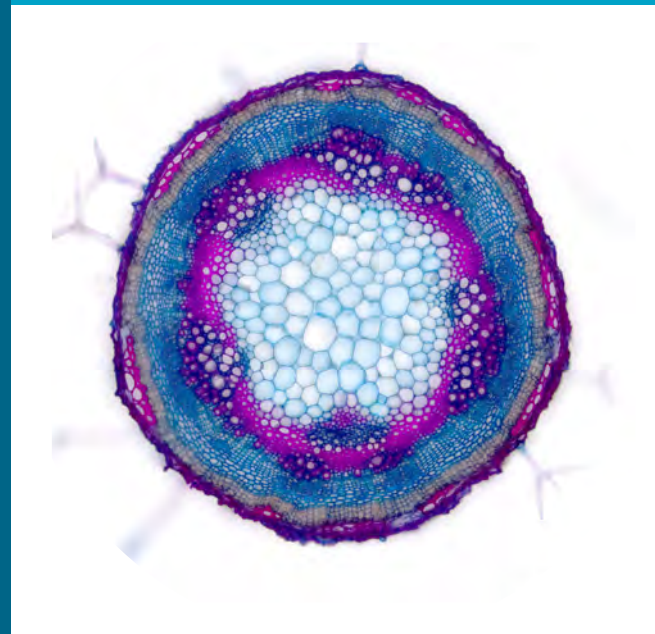
Arabis alpina, a model system used to study the traits of perennial plants

- ▶ **Perennial zone (PZ)**- proximal and regularly flowering structure
- ▶ **Annual zone (AZ)**- distal senescing structure forming seeds

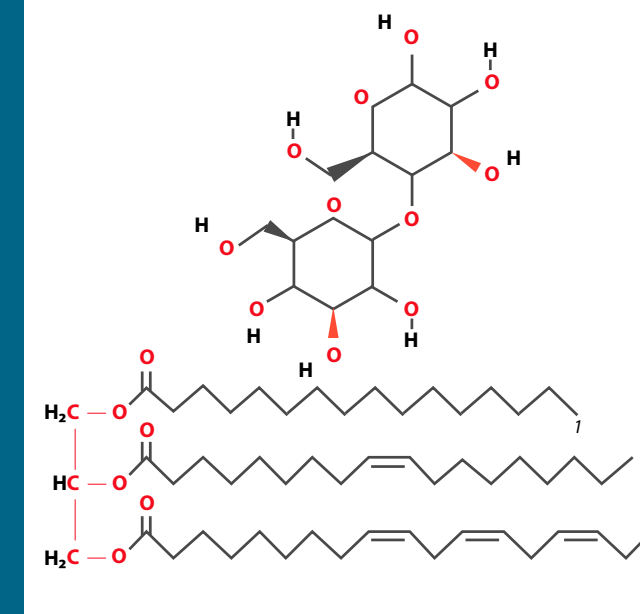
Study assesses zonation for

- ▶ Anatomical differences
- ▶ Roles in nutrient storage
- ▶ Signaling

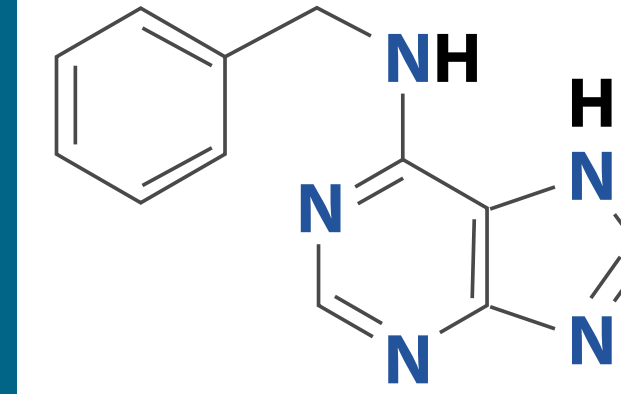
Microscopic analysis



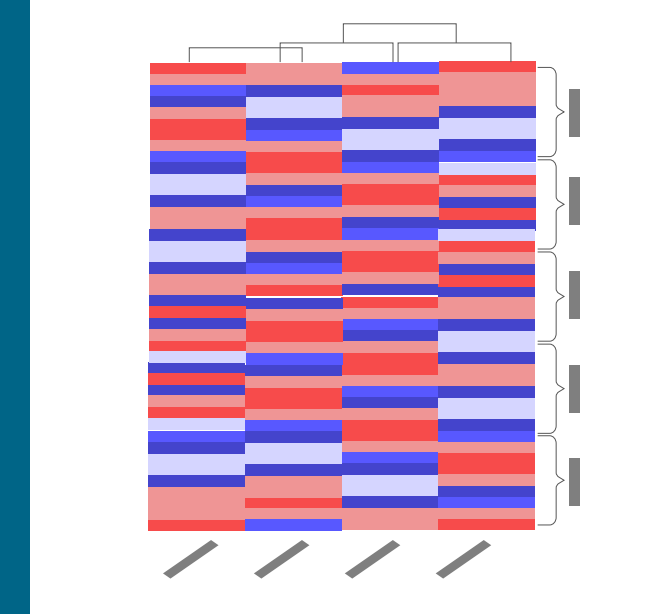
Biochemical analysis



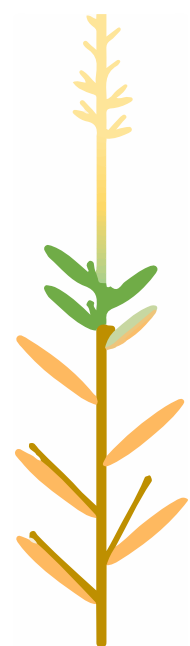
Hormone treatment



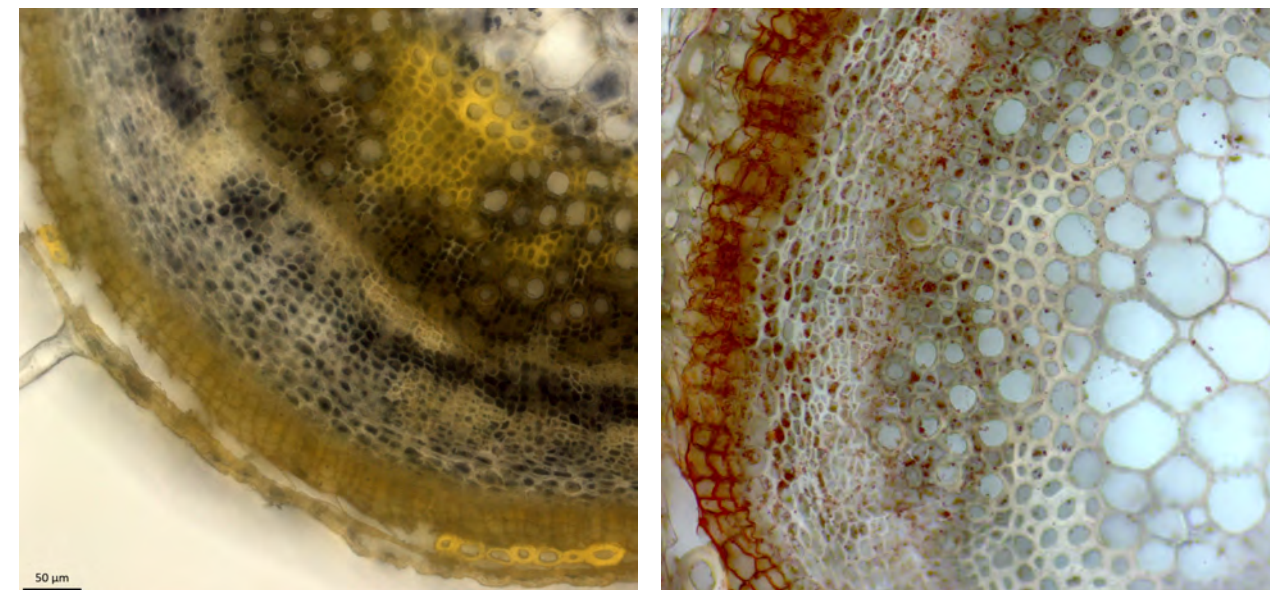
RNA sequencing



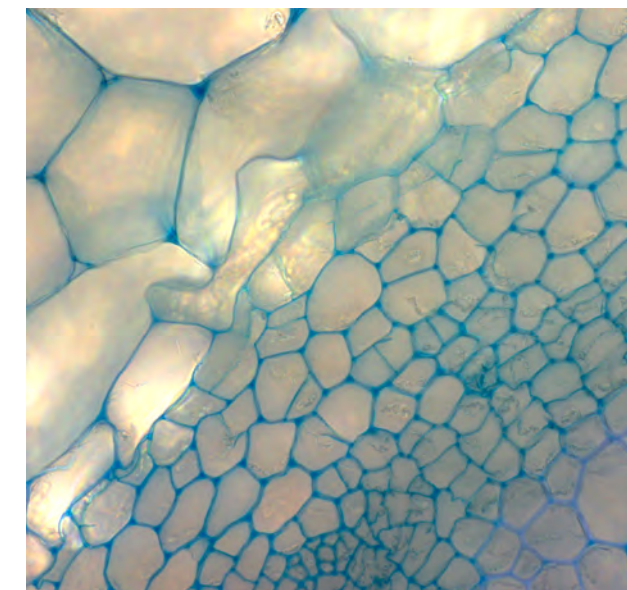
Vegetative- PZ
Inflorescence- AZ



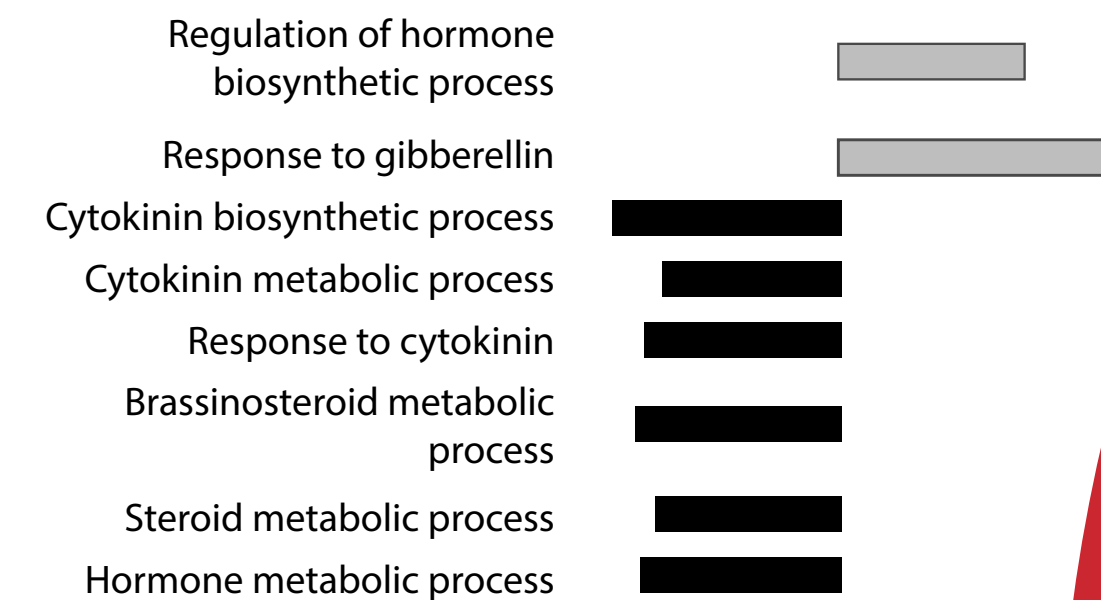
Starch and lipid storage



Cytokinin treatment- secondary growth



RNA-seq
Cytokinin-associated genes



A. alpina primarily uses the vegetative PZ for nutrient storage; secondary growth in the PZ is likely promoted by cytokinin