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Plant tissue and organ imaging platform

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Purpose

Offer access to equipment and techniques for :

- phenotyping
- tissue patterning analysis
- *in situ* localization of molecules such as nucleic acids and proteins in living organisms

Know-how, tools

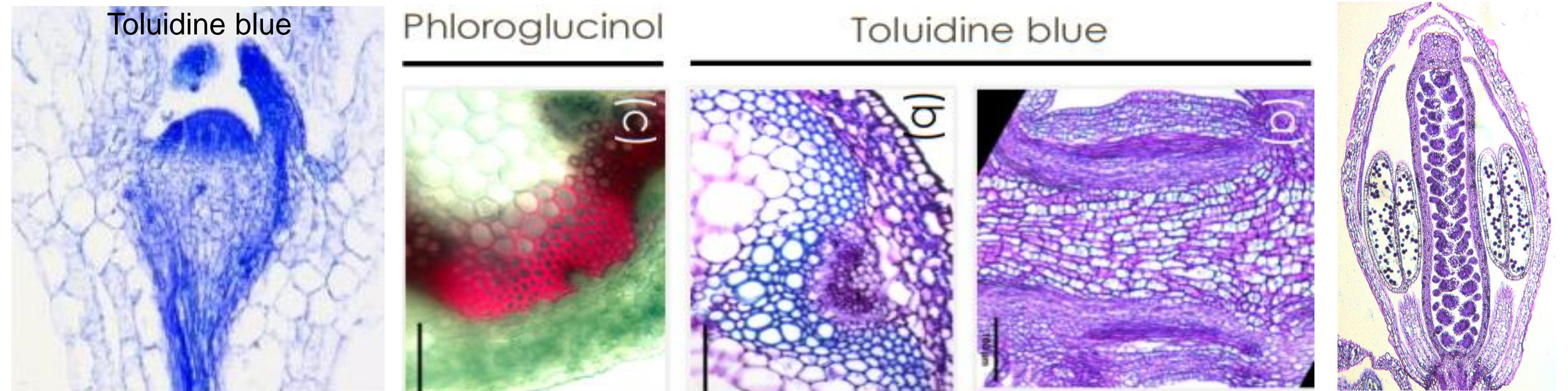
❖ **Plant phenotyping:** observations ranging from the macroscopic to the microscopic scale



ap1 cal mutant

Wild type

❖ **Classical histology experiments** to visualize plant tissue structures using different staining methods on tissue sections

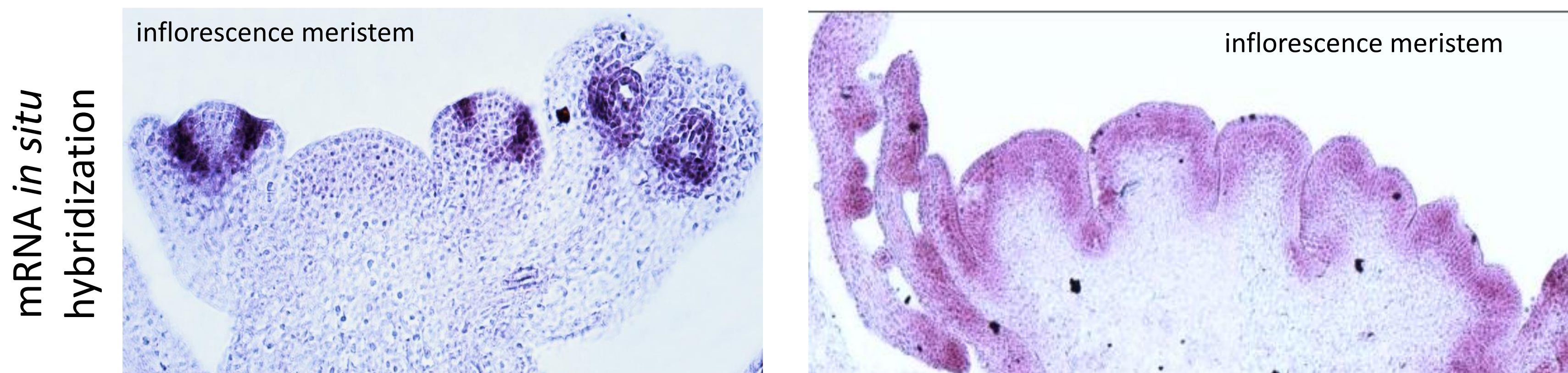


Shoot apex

Stem

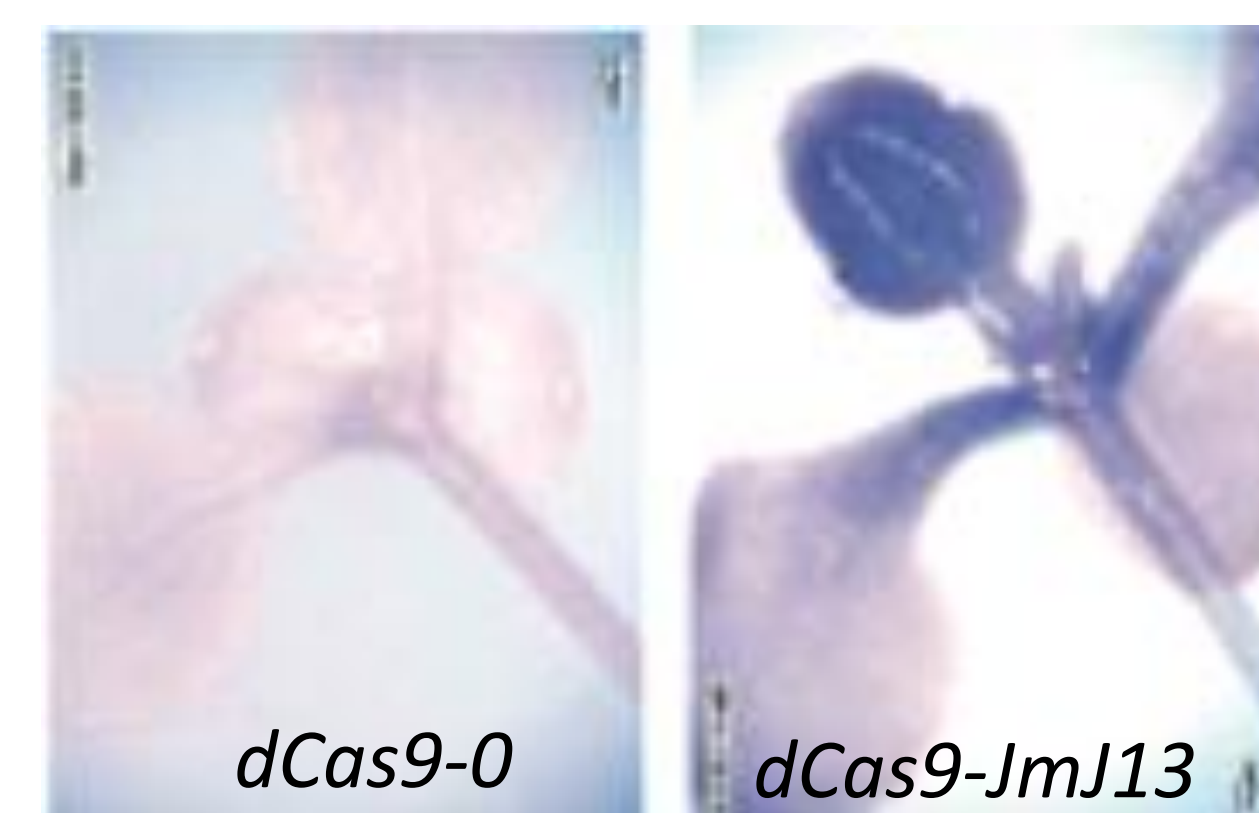
Flower

❖ **Molecular histology techniques** to study gene expression (GUS), molecules of interest *in situ* hybridization or immuno-localization on whole-mounted or on sectioned tissues



APETALA3 in WT (section)

AGAMOUS in *jabba* mutant (section)



dCas9-0

dCas9-ImJ13

CUC3 (whole mount)

Images taken on *Arabidopsis thaliana* lines

Equipment, facilities



GFP SZX12 binocular magnifier
 (microscope objectives X7 to X90-ocular X10)



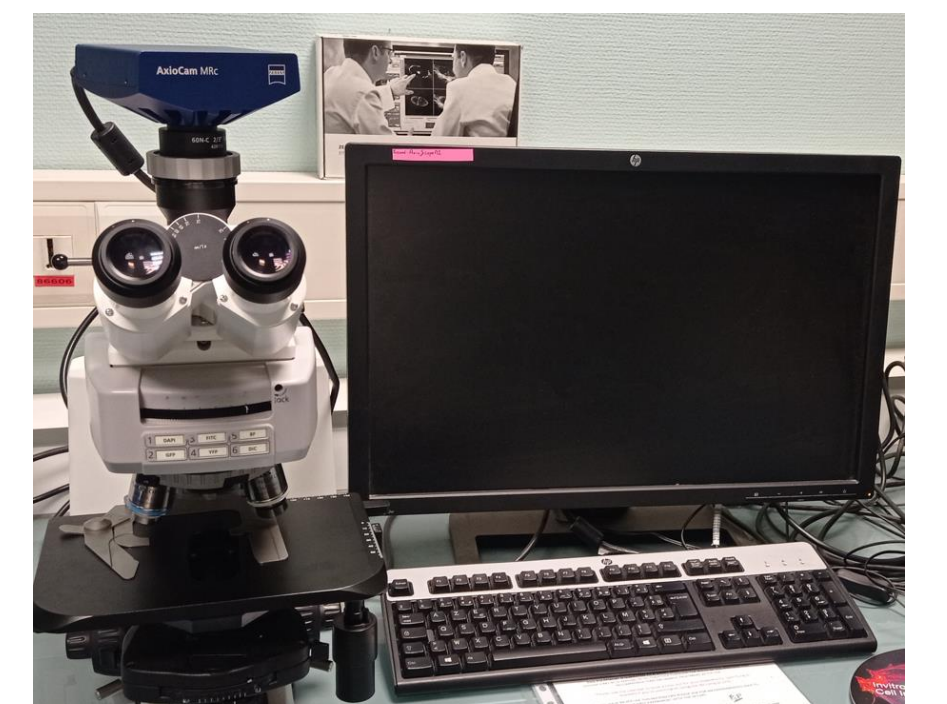
Keyence VHX-5000 3D digital microscope
 (microscope objectives X20 to X200 and X100 to X1000)



Vibratome



Microtome



Zeiss AxioScope microscope