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# Imaging on Plant Tissues and Organs : from tissue patterning to molecular labelling



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## Purpose

Develop techniques for **developmental phenotyping** and **in situ molecular labelling** (nucleic acids, proteins), to study :

- **Tissue patterning**
- **Genetic interactions** (using loss-of-function and gain-of-function lines)
- **Effect of epigenome editing** on **gene** expression and **protein** accumulation

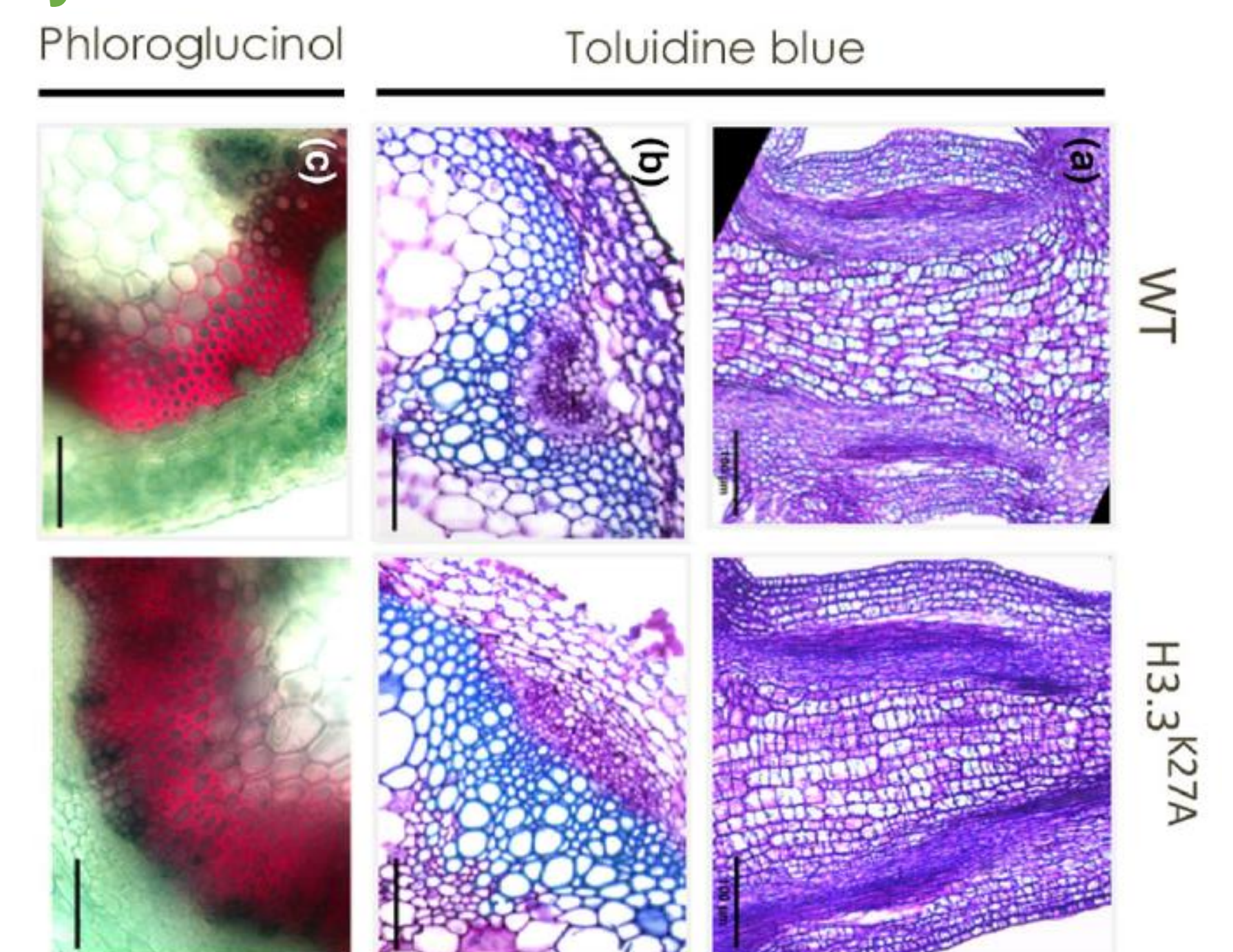
Observations from the macroscopic to the microscopic scale

## ChromDev projects involving imaging on plant tissues

❖ Flower development regulation via a long non coding RNA



❖ Effect of a Histone mutant on stem patterning and lignin biosynthesis



❖ Effect of epigenetic editing on gene expression

JMJ

**CUC3** *in situ* hybridization for CUC3 mRNA (whole mount)

**Epifluorescence of a CUC3::CFP construct**

❖ Developmental gene expression in genetic variants (RNA *in situ* hybridization)

mRNA *in situ* hybridization

**WUSCHEL (section)**

Images all taken on Arabidopsis thaliana lines

## Equipment, facilities



Histology room, with microtome, vibratome, incubators, ...



Zeiss AxioScope microscope



Keyence VHX-5000 3D digital microscope (magnification x20 to x1000)

## Contacts

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