

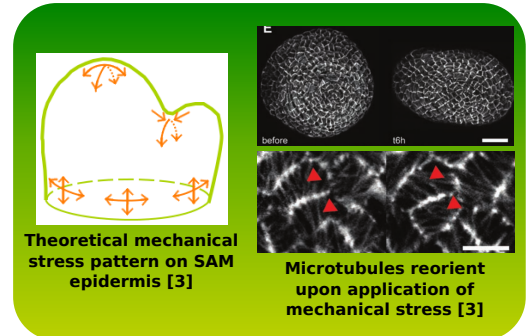
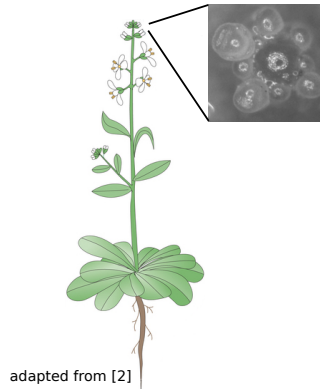
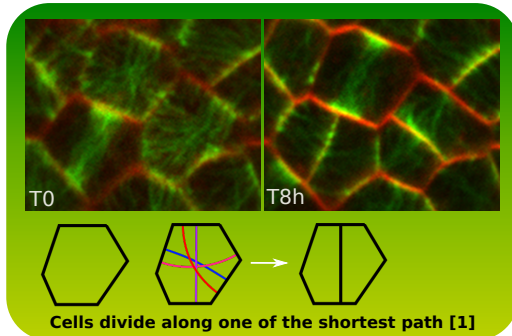
# Does mechanical stress influence cell division plane orientation in *Arabidopsis thaliana* ?

Marion Louveaux<sup>1,2</sup>, Jean-Daniel Julien<sup>1,2</sup>, Vincent Mirabet<sup>1,2</sup>, Annamaria Kiss<sup>1,2</sup>, Arezki Boudaoud<sup>1,2</sup>, Olivier Hamant<sup>1,2</sup>

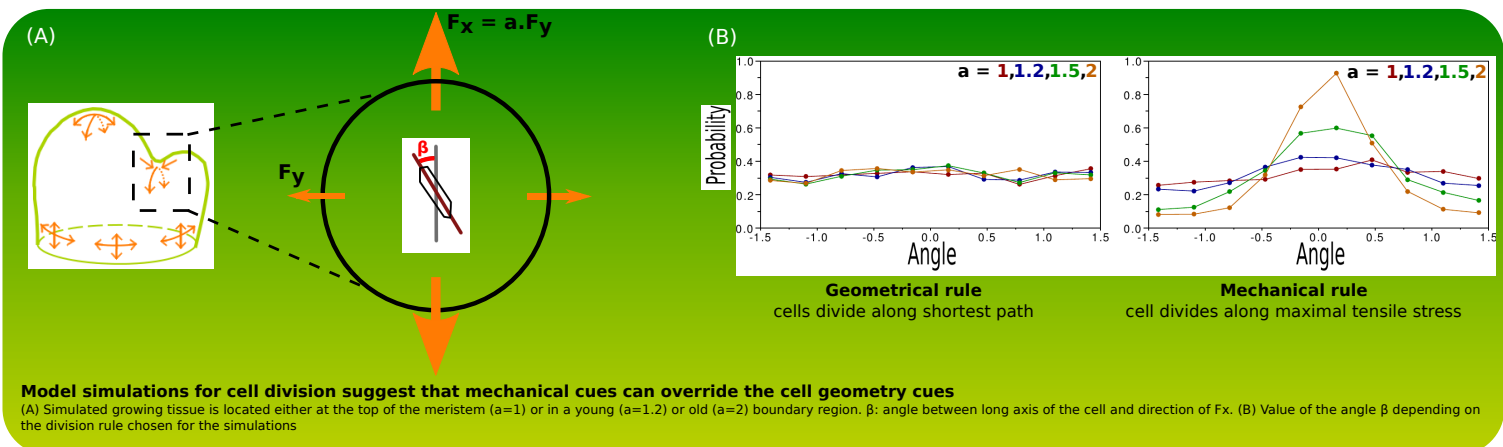
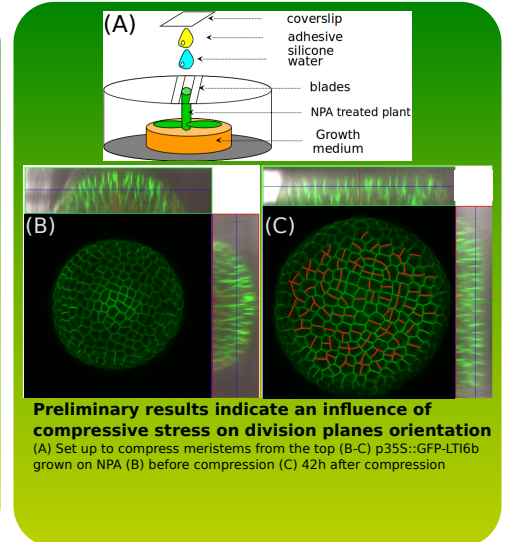
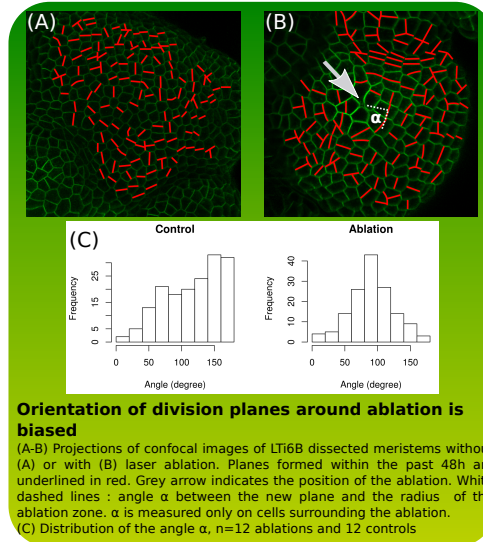
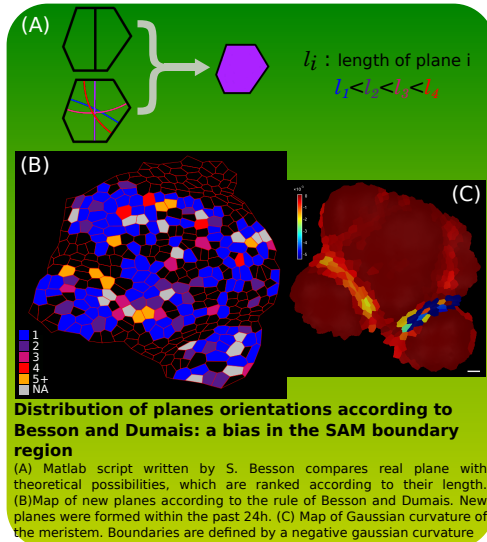
1. Laboratoire de Reproduction et Développement des Plantes, CNRS, ENS, INRA, UCBL, 46 allée d'Italie, 69364 Lyon, Cedex 07, France

2. Laboratoire Joliot-Curie, CNRS, ENS, 46 allée d'Italie, 69364 Lyon, Cedex 07, France

## Context



## Results



## Discussion & Perspectives: Towards a new geometrical rule including cell stress pattern?

- Ongoing work on compression with a microindenter
- Ongoing work on correlating differential growth (as a source of mechanical stress) with division planes orientation

## References

[1] Besson et Dumais, 2011, PNAS [2] Sparks et al., 2010, Nature Reviews Genetics [3] Hamant et al., 2008, Science

## Acknowledgements

We thank Jacques Dumais and Sébastien Besson for sharing their Matlab script on cell division, Richard Smith and Pierre Barbier de Reuille for help on MorphoGraphX and MerryProj, the Platim (microscopy facilities at the ENS). This work was supported by a PhD grant from ARC3 Environnement, Région Rhône Alpes, France