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I-Nuclear organisation is a growing field of investigation: example in Arabidopsis

Tools are needed to study nuclear morphology and chromatin organisation

Parameters to characterise a nucleus?
Volume, shape, heterochromatin density & position, etc.

Aim: Design a new ImageJ plugin for 3D morphometric parameters

Nucleus J, a new ImageJ plugin dedicated to nuclear shape and chromatin organisation

New method to assess quantitative differences in nuclear organisation between wild type and mutant backgrounds

Futur directions:
- Phenotyping of new mutants
- Use of other model species (ex: spermatozoid nucleus compaction)
- Implementation of new parameters (new segmentation methods)
- Adaptation to 3D DNA-FISH analyses