Regulatory DNA binding peptides as novel tools for plant functional genomics

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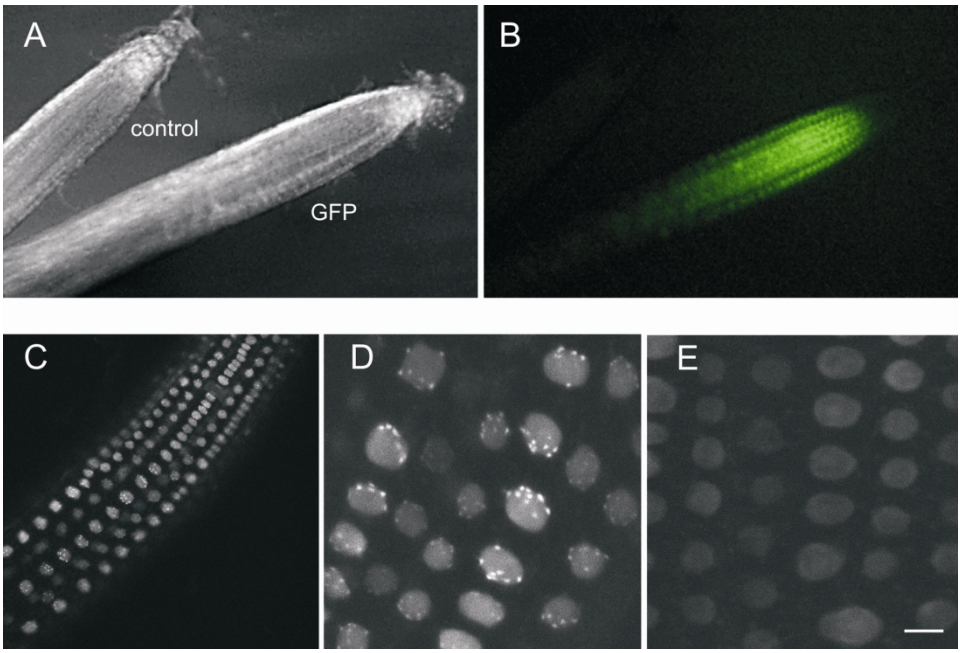
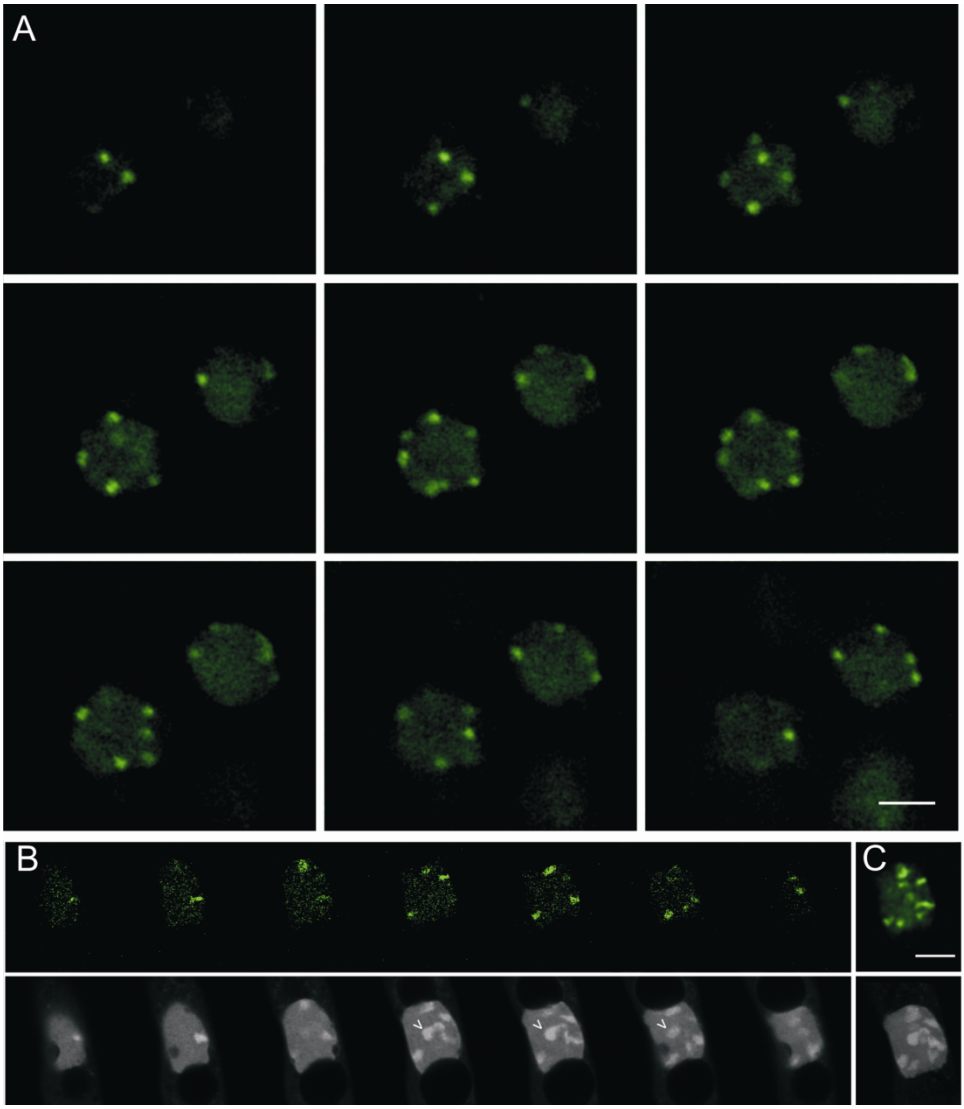


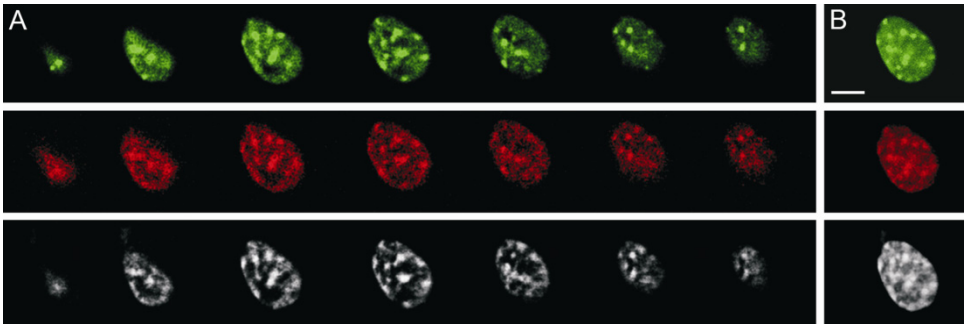
Chapter 2, Figure 2:

PZF:GFP expression in *Arabidopsis* roots. (**A**) Root tips from a GFP-transformant (GFP) and an untransformed (control) plant under white light and (**B)** under blue excitation. Only the transformant shows green fluorescence in the meristematic cells. (**C**) Confocal image of a root tip expressing 180:GFP, showing GFP-fluorescent nuclei. (**D**) Magnification of cells shown in (**C**) reveals up to ten brightly fluorescing spots per nucleus. (**E**) In comparison, the control GFP construct without PZF domain shows a diffuse fluorescence throughout the nucleus. Scale bar = 5 microns. (**C-E**) are Z stacks of optical sections.



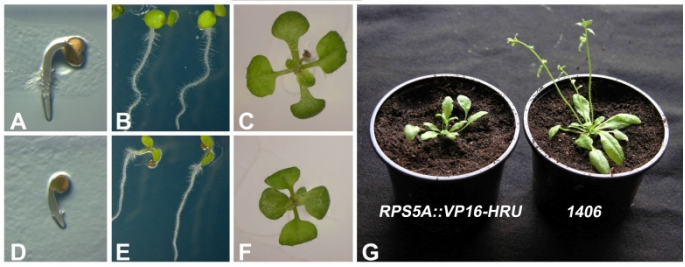
Chapter 2, Figure 3:

Live cell imaging of 180:GFP labeled nuclei. (**A**) Serial optical sections showing labeled centromeres at the periphery of nuclei. (**B**) 180:GFP fluorescent spots (upper file) correspond with chromocenters visualized with propidium iodide (lower file). The arrowhead (>) marks the central position of the propidium iodide-positive nucleolus. (**C**) Z-stack of the optical sections shown in (**B**), illustrating the co-localization of 180:GFP fluorescent signals and propidium iodide stained chromocenters. Scale bar = 5 microns.



Chapter 2, Figure 4:

Live cell imaging of MaSat:GFP in NIH 3T3 mouse cells. (**A**) Serial optical sections of a 3T3 cell nucleus expressing MaSat:GFP (green) and mRFP-HP1α (red). The cell was stained with DRAQ5 (white) to visualize DNA. Note the co-localization of DRAQ5-intensely stained chromocenters with regions of high mRFP-HP1α and MaSat:GFP fluorescence. (**B**) Z-stack of the optical sections shown in (**A**). Scale bar = 5 micron.



Chapter 5, Figure 1

Phenotypic characterization of *RPS5A::VP16-HRU* expressing plantlets compared with the parental line 1406. (A, B and C) 1406 seedlings grown on ½ MS. (D,E and F) *RPS5A::VP16-HRU* seedlings grown on ½ MS. *RPS5A::VP16-HRU* seedlings are slightly delayed and show mild epinastic growth of the cotyledons (F). (G) *RPS5A::VP16-HRU* plants are delayed in flowering time (left plant) compared to the parental line 1406 (right plant).