

## Focusing on the cell memory of plants

**Scientists from Heidelberg University have discovered a mechanism in Arabidopsis that enables cells to pass on information about their genetic fate to new generations of cells. This surprising discovery also reveals that the mechanism in Arabidopsis is strikingly similar to human cell memory.**

Plants and humans use a similar mechanism to enable cells to pass information on their genetic fate to their daughter cells. Biologists at Heidelberg University made this surprising discovery while they were carrying out experiments on mouse-ear cress, the so-called model plant of molecular biology. During these experiments, structural similarities between two plant proteins and a human protein that affects cell memory came to light. The research team led by Dr. Myriam Calonje thus obtained new insights into how the information on the specific gene programme in growing tissues is passed on to new generations of cells. The results are published in the journal "Current Biology". (Bratzel et al.: Keeping Cell Identity in Arabidopsis Requires PRC1 RING-Finger Homologs that Catalyze H2A Monoubiquitination, Current Biology 2010; doi:10.1016/j.cub.2010.09.046).

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### **Press release**

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