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## **Novel role of the AT-HOOK MOTIF NUCLEAR LOCALIZED 15 gene in Arabidopsis meristem activity and longevity**

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## Stellingen

Behorende bij het proefschrift

### **Novel role of the *AT-HOOK MOTIF NUCLEAR LOCALIZED 15* gene in *Arabidopsis* meristem activity and longevity**

1. *AHL* genes are key molecular switches between the monocarpic and polycarpic life strategy during plant evolution (This thesis).
2. The limitations and difficulties encountered when studying functionally redundant genes can be overcome by expression of a dominant negative gene variant (This thesis).
3. Plant architecture and biomass are determined by meristem fate and activity (This thesis).
4. The universal effect of the *AHL15* gene on plant developmental phase transitions justifies its alternative (unofficial) name *REJUVENATOR* (This thesis).
5. The long-standing question how plant species lost and regained woodiness during evolution may be answered by a single gene (This thesis).
6. Each aspect of plant growth and development is regulated by parallel molecular pathways.
7. In genetic studies, proper experimental design along with biological replicates are the most crucial steps.

*Casler, M.D. (2015) Agron. J. 107: 692–705*

8. Most senescence-associated factors in animals do not seem to be particularly significant for plant longevity, but like in animals nutrient signaling may have a part to play.

*Munné-Bosch, S. (2007) CRC. Crit. Rev. Plant Sci. 26: 123–138*

*Thomas, H. (2013) New Phytol. 197: 696–711*

9. Physiological redundancy and/or crosstalk between different plant hormones plays a crucial role in plant development.

*Depuydt, S. and Hardtke, C.S. (2011) Curr. Biol. 21: R365–R373*

*Jang, G., Yoon, Y., and Choi, Y. Do (2020) Int. J. Mol. Sci. 21: 1–15*

10. Rapid advances in technology along with competition reduce the pleasure of learning.
11. Other cultures should be judged based on reliable studies and not on what is reported by the media.
12. Cooking with a pinch of love gives the gorgeous flavor and makes you happy.

**Arezoo Rahimi, Leiden  
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