

Protein ubiquitination in auxin signaling and transport

Santos Maraschin, F. dos

Citation

Santos Maraschin, F. dos. (2009, June 25). *Protein ubiquitination in auxin signaling and transport*. Retrieved from https://hdl.handle.net/1887/13868

Version: Corrected Publisher's Version

License: License agreement concerning inclusion of doctoral thesis in the

Institutional Repository of the University of Leiden

Downloaded from: https://hdl.handle.net/1887/13868

Note: To cite this publication please use the final published version (if applicable).

Stellingen

Behorende bij het proefschrift

Protein ubiquitination in auxin signaling and transport

1. Auxin-induced interaction with SCF^{TIR1} leads to ubiquitination and proteasomal degradation of Aux/IAA proteins.

Dharmasiri et al. (2005) Nature (435) 441-445

Kepinski and Leyser (2005) Nature (435) 446-51

This thesis

2. An ubiquitinated protein is not necessarily degraded by the proteasome, and the proteasome does not necessarily degrade only ubiquitinated proteins.

This thesis

Asher, et al. (2005) Genes Dev. (19)316-321

Chen, et al. (2007) Mol. Cell (26)843-852

Mukhopadhyay and Riezman (2007) Science (315)201-205

3. The activity and stability of the BODENLOS/IAA12 protein is regulated by phosphorylation at the PRSS motif between the conserved domains I and II.

This thesis

4. The observation that the PID kinase is ubiquitinated *in vivo* suggests that the BTB domain protein PINOID BINDING PROTEIN 2 is part of a E3 ubiquitin ligase complex that is involved in its regulation.

This thesis

Zago et al.,2006

Robert et al., 2008

5. Unraveling the functional diversity of the ubiquitin signal is the task for a future Nobel Prize winner.

Weissman, A.M. (2001), Nature Reviews Mol. Cell Biol. (2)169-178

Smalle and Vierstra (2004), Annu. Rev. Plant Biol. (55) 555-90

Glickman and Ciechanover (2002) Physiol. Rev. (82):373-428.

6. Although hormone responsive promoters such as the *DR5* promoter have been extremely informative reporters to study hormone action, we still need markers to detect the (sub)cellular concentrations of the hormones.

Ulmasov, et al. (1997) Plant Cell (9)1963-1971 Sabatini et al. (1999) Cell 99(5)463-472 Heisler et al. (2005) Curr Biol (15)1899–1911

7. The scaffold function of the COP9 signalosome is emerging as an important feature bringing together kinases, substrates, E3 ligases and the proteasome.

Harari-Steinberg and Chamovitz (2004) Curr Protein Pept Sci, (5)185-189

- 8. Describing the molecular components of the essential individual biological processes is a matter of time; the real challenge will be to understand how they work all together.

 Vanneste and Friml (2009) *Cell* 136(6)1005-1016
- 9. Biology is just a lot of complex chemistry, which is just a lot of complex physics, which is just complex mathematics.
- 10. Scientists dedicate their lives to describe the laws of nature by doing experiments that are ruled by a much higher law, Murphy's Law.
- 11. In a world that lives under the regime of Monetarism everybody becomes a worker for the international banks' profit.
- 12. Changing yourself is easier than changing the world and it is a very good start.

V-----

Felipe dos	Santos	Maraschin
June 2009		

Verwijderd: —Pagina-einde-