

Stellingen behorende bij het proefschrift

Functional Proteomics Analysis of Transcription Factor Networks in Erythroid Cells

1. 5FMC is a novel chromatin complex composed of Pelp1, Senp3, Las1L, Wdr18 and Tex10. (this thesis)
2. The 5FMC complex interacts with methylated Chtop. (this thesis)
3. Prmt1 is the only type I arginine methyltransferase that methylates Chtop. (this thesis)
4. Senp3 regulates the sumoylation status of Zbp-89. (this thesis)
5. LAS1L is localized in the nucleolus of human cells but can not be detected in the nucleolus of mouse cells. (this thesis)
6. Sumoylation of transcriptional repressors is a general mechanism to recruit chromatin remodeling and histone-modifying complexes. (Garcia-Dominguez and Reyes, *Biochimica et Biophysica Acta*, 2009)
7. Histone sumoylation appears to govern chromatin structure, thus mediating transcriptional repression. (Shiio and Eisenman, *PNAs*, 2003)
8. PELP1 is associated with SUMO-2 (Rosendorff et al., *PNAs*, 2006)
9. Methylation of arginine residues in proteins can provide a recognition platform for interaction partners, or can modulate their biological activity directly. (Bedford and Clarke, *Mol. Cell*, 2009)
10. Components of the 5FMC complex are involved in ribosome biogenesis and RNA processing. (Finkbeiner et al., *EMBO J.*, 2011 and Castle et al., *Mol Cell Biol.*, 2010)
11. "What is research but a blind date with knowledge". (Will Harvey)

Pavlos Fanis