

Propositions – Stellingen

Associated to the thesis - Behorende bij het proefschrift

Transcriptional regulation in the neural lineage

1. The Mediator complex is a perfect tool for discovering the core transcriptional regulators acting at promoters or enhancers in the investigated cell type (this thesis).
2. Besides transcription factors acting at long distance enhancers we still have to discover many others working at promoters such as Cggbp1 (this thesis).
3. Space-time characterization of open chromatin regions during hippocampal neuronal development provides putative transcription factors involved in the dynamic epigenetic switch that occurs in maturing neurons.
4. Super-enhancers and other “special” chromatin features may not have distinctive functional properties except being above of a non-arbitrary threshold of detection (Muhar et al., 2018; also reviewed in this thesis).
5. On the other hand, the separation of the genome in different subsets can lead to the discovery of new regulatory mechanisms (this thesis; and Whyte et al., 2013; Benayoun et al., 2014).
6. One must be careful when making statements based on the analysis of genomic regulation and the assembly of biological big-data, as the peril of false hypotheses generated by the inherent biases of bioinformatics is ever-present.
7. The capacity to blunder slightly is the real marvel of DNA. Without this special attribute, we would still be anaerobic bacteria and there would be no music. – Lewis Thomas (In *The Medusa and the Snail: More Notes of a Biology Watcher*, 1974)
8. Wild men who caught and sang the sun in flight / And learn, too late, they grieved it on its way / Do not go gentle into that good night – Dylan Thomas (In *Country Sleep, And Other Poems*, 1952)
9. The summit meant nothing, the wall everything – John Long (American rock climber)