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## Regulation of globin gene expression: boxes and borders

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Stellingen behorende bij het proefschrift:

## Regulation of globin gene expression: boxes and borders

1. NF-E6 is a dimeric factor that contains C/EBP $\gamma$  (this thesis).
2. The  $\beta$ -globin CCAAT box is bound *in vitro* by a multiprotein complex that contains at least NFY, GATA1 and NF-E6 (this thesis).
3. Hypersensitive site 5 of the human LCR does not function like a classical insulator (this thesis).
4. Rather than being static barriers, insulators are likely to facilitate transcription in multigene loci (Cai et al., 2001, Science, 291 493-5; Muravyova et al. 2001, Science, 291 495-8).
5. The conclusion reached by Tanimoto et al. (1999, Nature, 398, 344-8) that the LCR is unable to direct a high level of expression of a globin gene positioned upstream of HS5 cannot be made if a  $\beta$ -globin gene is used as a reporter (this thesis).
6. The relative low gene density on chromosome 21 is consistent with the observation that trisomy 21 is one of the few viable trisomies (Hattory et al., 2000 Nature, 405, 311-9).
7. Refractory Germ Cell Tumors cannot be treated by strategies targeting tyrosine kinases of the EGF receptor family, as all components except the syncytiotrophoblast of Choriocarcinoma lack these receptors (Moroni et al., Clin Cancer Res 2001 7(9): 2770-5; Kollmannsberger, Mayer et al. submitted 2001).
8. The efficiency of Cre-mediated gene excision differs markedly between different substrates within the same cell. This has important consequences when concurrent recombination of multiple loci within the same cell is needed (Vooijs et al., EMBO reports 2001, (2) 4, 292-7).
9. The hypothesis (Lipton A.S. 2001, Nature, 413, 118-20) that haemoglobin first evolved to ferry NO to key locations in the body rather than O<sub>2</sub>, ignores the fact that the function of NO at those locations is to increase oxygen supply.
10. Biodiversity and the black-tailed godwit may be better served by intensively managed farmlands than appreciated previously (Kleijn et al. 2001, Nature 413, 723-5).
11. Science is also a form of art, it follows fashion and trends.