

# Stellingen

behorend bij het proefschrift

## **‘The spatial organisation of the $\beta$ -globin locus: the Active Chromatin Hub’**

1. In the active  $\beta$ -globin locus all *cis*-regulatory elements are in close proximity to the active  $\beta$ -globin gene while the intervening chromatin loops out.  
*This thesis; Tolhuis et al. (2002) Mol Cell 10: 1453-1465*
2. In erythroid progenitor cells, the  $\beta$ -globin locus, which is poised for transcription, adopts a looped conformation between distal regulatory elements and the 5' hypersensitive sites of the LCR.  
*This thesis; Palstra et al. (2003) Nat Genet 35: 190-194*
3. The formation of a proper  $\beta$ -globin ACH is directly dependent on the action of EKLF on the  $\beta$ -globin locus and is not governed by the activation of a secondary pathway by EKLF.  
*This thesis; Drissen et al. (2004) Genes Dev 18: 2485-2490*
4. Transcription factors play an important role in the formation and/or maintenance of an Active Chromatin Hub.  
*This thesis; Drissen et al. (2004) Genes Dev 18: 2485-2490*  
*Spilianakis and Flavell (2004) Nat Immunol 5: 1017-1027*
5. It is not loop formation *per se* that is important, but rather the bringing together of distant DNA sequences with bound protein to generate a site of high protein concentration in the nucleus.  
*This thesis*

6. Restriction sites don't interact, restriction fragments do!  
As opposed to what is suggested in:  
*Eivazova and Aune (2004) Proc Natl Acad Sci U S A 101: 251-256*
7. The formation of gene loops, thereby juxtaposing promoters and terminators, could be an important feature of high-level gene activation by promoting efficient transcriptional reinitiation.  
*O'Sullivan et al. (2004) Nature Genetics 36: 1014-1018*  
*Dieci and Sentenac (2003) Trends Biochem Sci;28: 202-209*
8. The winning of the X-Prize competition by SpaceShipOne and its development for commercial space tourism by Virgin Galactic will initiate a second space age.  
*News in Brief (2004) Nature 431: 620*
9. Facts, and convictions are often wrong.  
*Robert McNamara; January 21, 1961 - February 29, 1968*  
*8th Secretary of Defense; Kennedy and Johnson*  
*Administration*  
Something the current administration seems to forget.
10. Applying restrictions on civil rights and liberty of speech as a weapon to liberate us from terrorism equals submission.
11. The necessity of sponsor actions to keep the scientific and medical setting in our hospitals healthy is sickening.  
[www.erasmusmc.nl/proteomics/](http://www.erasmusmc.nl/proteomics/)  
[www.medischewereld.nl/index.php?newsid=767&guide=5](http://www.medischewereld.nl/index.php?newsid=767&guide=5)

Robert-Jan Palstra, 7 december 2004