

Stellingen

behorend bij het proefschrift

‘The spatial organisation of the β -globin locus: the Active Chromatin Hub’

1. In the active β -globin locus all *cis*-regulatory elements are in close proximity to the active β -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 β -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 β -globin ACH is directly dependent on the action of EKLF on the β -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/
www.medischewereld.nl/index.php?newsid=767&guide=5

Robert-Jan Palstra, 7 december 2004