Stellingen

Behorende bij het proefschrift

DNA Phenotyping: The Prediction of Human Pigmentation Traits from Genetic Data

1. DNA phenotyping has the ability to unlock cold cases in forensics, missing-persons cases and reveal our ancestors physical appearance.
2. The IrisPlex system can predict human blue and brown eye colour with > 94% accuracy. (This thesis)
3. The HIrisPlex system can predict human hair colour categories blond, brown, black and red with an average accuracy of 79%. (This thesis)
4. Validation of the IrisPlex and HIrisPlex systems ensure their suitability for forensic applications. (This thesis)
5. Quantitative pigmentation phenotyping has the potential to find new underlying genes. (This thesis)
6. Moving eye and hair colour DNA prediction from current categorical levels to future continuous levels will provide most detailed outcomes. (This thesis)
7. The intronic HERC2 rs12913832 SNP region functions as an enhancer regulating OCA2 transcription. (Visser 2012)
8. The association effect of a SNP with a phenotype does not automatically equal a predictive effect.
9. Variation in human eye and hair colour is of European origin and was shaped by sexual selection i.e. mate choice preferences [Frost 2006]
10. Human eye and hair colour variation within Europe is older than 5300 years. (This thesis)
11. There's no gene for fate. [GATTACA, 1997]