

The Biology of Skin Colour

<http://www.hhmi.org/biointeractive/biology-skin-color>

1. What accounts for the variety of skin colour?
2. What determines which type of melanin we have?
3. What are the two types of melanin in our skin?
4. What is UV light?
5. What is the role of melanin in our skin cells?
6. Does UV radiation vary across the world?
7. Is there a connection between the intensity of UV radiation and skin colour?
8. Which gene is linked to pigmentation?
9. What does the gene MC1-R code for?

10. Where in the world is there not a lot of diversity in the MC1-R gene? Why not?
11. What is folate?
12. Explain the direct link between UV radiation, skin colour and reproductive success.
13. Is all UV light bad? Explain
14. Why did the evolution of paler skin colour occur? How is related to UV light and Vitamin D?
15. Currently, which phenotype would be at highest risk of skin cancer?
16. Currently, which phenotype is at risk of low Vitamin D synthesis?