

MORE GREY HAIR – AM I GETTING OLD?

Goals: The aim of this publication is to draw attention to the different factors which may lead to hair greying. Mainly the correlation between the changing of hair colour and high stress levels was being examined.

Relevance: This discovery should highlight another reason of prematurely greying and not only the aspect of ageing. With this knowledge we would be able to develop new anti-greying therapies.

Normal condition of hair growth:

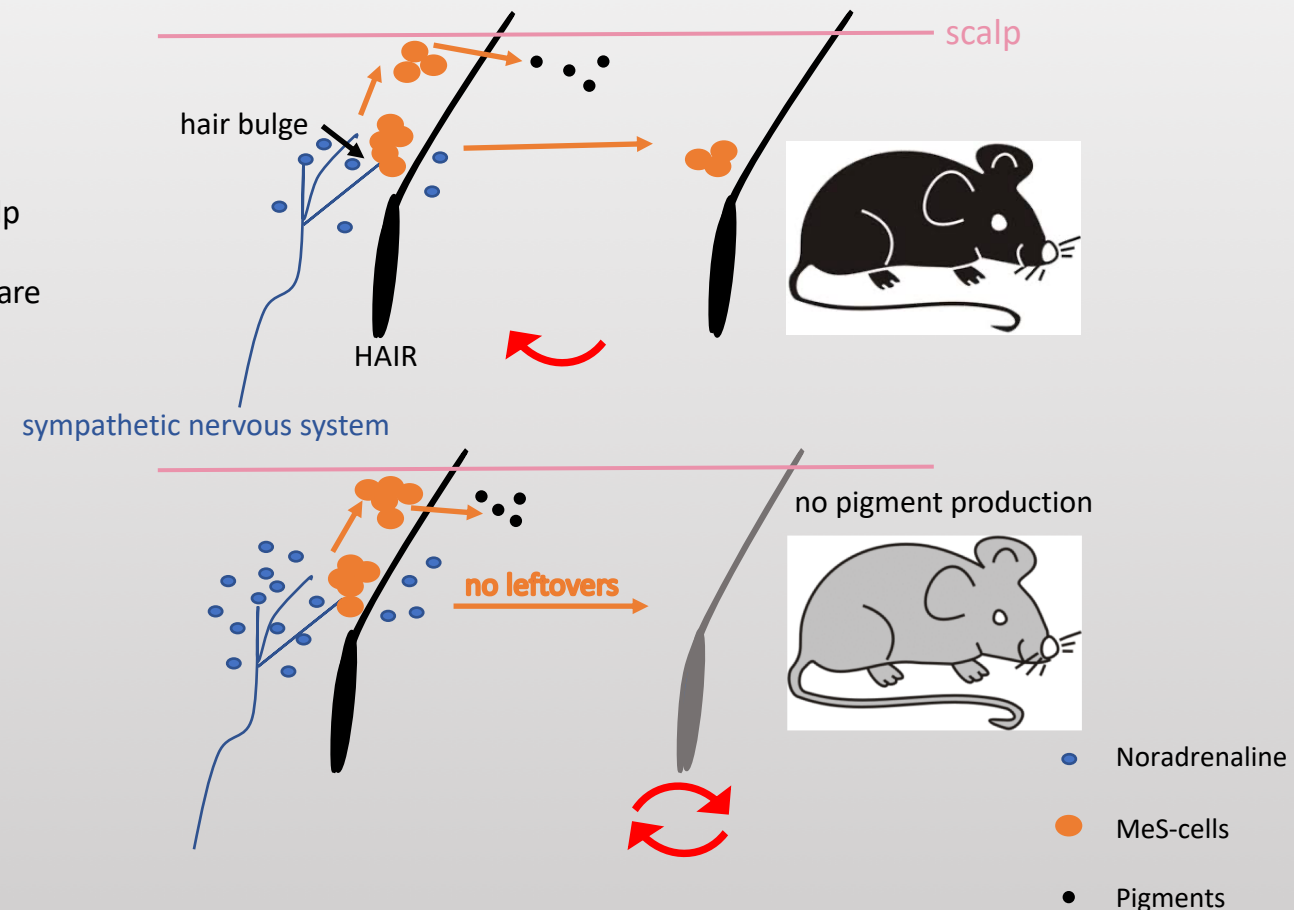
- Sympathetic nervous system (SNS) releases little amount of noradrenaline (stress hormone) at the hair bulge
- MeS-cells, also located at the bulge, move along the hair to the scalp and produce colour pigments
- Few MeS-cells stay at the bulge, reproduce themselves and so they are ready for the next cycle

➤ Coloured hair

Highly stressed condition:

- SNS produces much more noradrenaline
- They force all the MeS-cells to go to the scalp, without leaving any cells at the hair bulge
- From now on there are no MeSc left at the bulge and so there is no more production of pigments

➤ Hair turns and stays grey



Paper: *Fight or flight turns hair white.* Shayla A. Clark et al. (2020)

<https://www.nature.com/magazine-assets/d41586-019-03949-8/d41586-019-03949-8.pdf> (21.02.2020)