DNA damage in stem cells at root of hairloss

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

Baldness in old age may be related to stem cell loss in follicles, research suggests.

Mammals that have longer lifespans are known to lose their hair, but a study published in the journal Science attempts to understand why that is so.

Hair follicle stem cells, which generate the sacs or follicles that produce hair, keep hair growth going over time and have even been shown, in mouse studies, to resist ageing.

Scientists from Japan, the U.S. and the Netherlands analysed the skin of mice at 18 months, a point at which their hair loss begins, and found that there were fewer follicles and that they were also smaller and less thick than those in younger skin.

This seemed to indicate that something had changed in the way the follicles were generated, so researchers investigated the stem cells responsible for creating the follicles. Further research into key genes involved in stem cell maintenance led the researchers to conclude that accumulated DNA damage to the stem cells seems to play a role in driving the changes to the follicles.

The gene COL17AL was identified as especially important to regulating hair follicle stem cells, as mice which were engineered to lack the gene also had none of the follicle-generating cells.

Read full, original post: Bald truth: hair loss down to genes controlling follicle creation, study finds