# New properties of skin stem cells

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Recent research from the Swedish medical university Karolinska Institutet reveals completely new properties of the skin's stem cells – discoveries that contradict previous findings. The studies, which are published in *Nature Genetics,* show amongst other things, that hair follicle stem cells can divide actively and transport themselves through the skin tissue.

"The stem cells don't behave at all in the way we'd previously thought, and are found in unexpected places", says Professor Rune Toftgård, one of the scientists at Karolinska Institutet responsible for the study. "We're now investigating the part played by the stem cells in the wound-healing process and the development of basal cell carcinoma, the most common form of skin cancer."

The stem cells examined by the present study are found in the skin's hair follicles, around which the cells are able to move depending on their stage of growth. The scientists believe that their growth is governed by previously known mechanism called Hedgehog signalling. Mutations in the genes that control this signal system can cause the delayed deactivation of signal transference; the signals thus continue uninhibited, which increases the risk of cancer.

Source: Karolinska Institutet