

## Scientists grow hair using stem cells

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Could wigs, weaves or transplants someday become a thing of the past? Scientists report they were able to grow hair with stem cells in animal studies.

So far the technique has only been tried on mice, and results may not be the same in humans. But researchers say they have been able to grow natural-looking hair through the skin using stem cells.

This could bring new hope to men and women with hair loss, the researchers said -- if the technique proves successful in people.

"Now we have a robust, highly controlled method for generating natural-looking hair that grows through the skin," said Alexey Terskikh, an associate professor in the development, aging and regeneration program at Sanford Burnham Prebys, a nonprofit research institute in La Jolla, Calif.

The findings were presented Thursday at a meeting of the International Society for Stem Cell Research, in Los Angeles. Research presented at meetings is typically considered preliminary until published in a peer-reviewed journal.

The researchers said the system uses cells called dermal papilla. Found in the hair follicle, these cells control hair thickness, length and how fast hair grows.

The cells are laced through a biodegradable scaffold made of the same material as dissolvable stitches. The scaffold controls the direction the hair grows in and helps the cells become part of the skin. "This is a critical breakthrough in the development of cell-based hair-loss therapies and the regenerative medicine field," Terskikh said in a meeting news release.

For their experiments, researchers implanted a combination of mouse and human cells on hairless mice.

The lab is now working with human cells to make hair follicles that can be transplanted.

"Hair loss profoundly affects many people's lives. A significant part of my practice involves both men and women who are seeking solutions to their hair loss," said Dr. Richard Chaffoo, a plastic surgeon who is a medical adviser to Stemson Therapeutics, the company formed to promote this technology.

"I am eager to advance this groundbreaking technology, which could improve the lives of millions of people who struggle with hair loss," he said in the news release.

More information The American Academy of Dermatology offers more about hair loss.