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What is hair cloning?

Ian Sample
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A misnomer, for a start. But that shouldn't put smooth-scalped Bruce Willis off, who according to media reports, is keen to undergo the treatment as soon as it is available.

The treatment has nothing to do with cloning. It relies instead on the hair-producing capabilities of cells called dermal papillae at the bottom of hair follicles. "The cells work by recruiting nearby skin cells to make new hair-producing follicles," says Paul Kemp of Intercytex, a Manchester firm carrying out clinical trials of the technique.

Scientists have known for years that dermal papillae cells from follicles at the back of the head can be injected into a bald scalp to make hair sprout again. But getting the technique to work well has been tough.

The first hurdle, which scientists have now overcome, was working out how to make dermal papillae cells multiply in a dish. Doing this means only a few cells are needed to grow enough to cover the baldest of heads.

The second hurdle scientists faced was how to get the cells into the scalp. Because the cells have to go into such a thin layer of skin, tiny syringes, which inject just a few microlitres, are being used in Manchester. The trial should be complete in a few months, although final approval for the technique is unlikely before 2009.

Kemp says to give someone as bald as Bruce Willis a new head of hair would take 1,000-2,000 injections, each of which is done by hand. As painful as it sounds, the needles used are so fine, it should be more comfortable than hair transplants, he says. "Normally, a hair transplant is done one hair follicle at a time. It's painful and time consuming - it can take 16 hours to do a full head."



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