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Subject: HM News

Posted by [christian77](#) on Mon, 23 Apr 2012 09:29:29 GMT

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<http://www.nature.com/ncomms/journal/v3/n4/full/ncomms1784.html>

In this study, we successfully demonstrate fully functional bioengineered hair follicle regeneration that produces follicles that can repeat the hair cycle, connect properly with surrounding skin tissues and achieve piloerection. This regeneration occurs through the rearrangement of various follicular stem cells and their niches. These findings significantly advance the technological development of bioengineered hair follicle regenerative therapy.

In conclusion, this study provides novel evidence of fully functional hair follicle regeneration through the rearrangement of various stem cells and their niches in bioengineered hair follicles. Our study provides a substantial contribution to the development of bioengineering technologies that will enable future regenerative therapy for hair loss caused by injury or by diseases such as alopecia and androgenic alopecia. Further studies on the optimization of human hair follicle-derived stem cell sources for clinical applications and further investigations of stem cell niches will contribute to the development of hair regenerative therapy as a prominent class of organ replacement regenerative therapy in the future.

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