Hair Loss Is All in the Genes

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Scientists identified a new gene (APCDD1) involved in hair loss, according to research published in the journal *Nature*.

The APCDD1 gene causes a progressive form of hair loss beginning in childhood (known as hereditary hypotrichosis simplex).

According to press materials from Columbia University, researchers from Columbia, Rockefeller and Stanford universities analyzed genetic data from Pakistani and Italian families with heredity hypotrichosis simplex. They found a common mutation on the APCDD1 gene's chromosome 18, known for causing other forms of hair loss in previous studies, including alopecia.

Why does this gene affect hair loss? It inhibits the Wnt signaling pathway (molecules that regulate cell-to-cell interactions) that has been shown to control hair growth in mice.

Scientists can now target the similar pathway in humans to stimulate follicle growth. Researchers hope it will also lead to developing new treatments for genetic hair loss.

"These findings suggest that manipulating…the pathway may have an effect on hair follicle growth—for the first time in humans," said Angela Christiano, PhD, professor of dermatology and genetics and development at Columbia University Medical Center, and lead author of the study.

"And unlike commonly available treatments for hair loss that involve blocking hormonal pathways," Christiano added, "treatments involving this pathway would be non-hormonal, which may enable many more people suffering hair loss to receive such therapies."

Learn why people suffer hair loss here.

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http://beta.docker.realhealthmag.com/article/APCDD1-hereditaryhypotrichosissimplex-18585-3482