Genetic Discovery for Hair Loss

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New Research

Gene variant of the androgen receptor found to be associated with male pattern baldness...Gene variant of the androgen receptor found to be associated with male pattern baldness...Australian researchers have identified the first gene candidate for male pattern baldness (MPB). A variant of the androgen receptor (AR) gene was found in 98 percent of young men with premature balding and more than 90 percent of older bald men in the study.

However, the Stu1 gene variant of the androgen receptor, which was discovered by Stephen Harrap and colleagues, of the University of Melbourne, in Australia, does not change the structure of the receptor. The variation is also found in nearly 77 percent of men who were not bald at the time of the study.

"It would appear that tissue-specific abnormalities of the AR are not sufficient per se to cause baldness," the researchers write in The Journal of Investigative Dermatology.

The researchers believe that mutations in or close to AR may play a role in MPB, but the condition is likely to be caused by several genes of which the AR is just one.

Androgens are a group of hormones that direct the growth and development of the male reproductive system. The most important androgen is testosterone, which is produced in the testes.

Previous research supports the finding that the androgen receptor is involved in MPB. The pattern of hair loss is predominant in men, and absent in castrated men. Finasteride, a drug that blocks the formation of the androgen DHT, can reverse baldness. And most important, high levels of the androgen receptor are found in the frontal and vertex scalp where balding occurs, while levels are normal on other areas of the scalp.

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