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ADAM gene linked to asthma

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Asthma is a chronic respiratory disorder with a strong genetic component, but the exact genes involved have remained unclear. In 11 July [Nature](#), Paul Van Eerdewegh and colleagues from the [Genome Therapeutics Corporation](#), Massachusetts, US and the University of Southampton, UK, show that specific mutations in the *ADAM33* (membrane-anchored metalloproteases) genes are associated with asthma and bronchial hyperresponsiveness (*Nature* 2002, DOI:10.1038/nature00878).

Van Eerdewegh *et al.* performed a genome-wide scan on 460 Caucasian families and identified a locus on chromosome 20p13 that was linked to asthma and bronchial hyperresponsiveness. In addition, a survey of 135 polymorphisms in 23 genes using case-control, transmission disequilibrium and haplotype analyses identified the *ADAM33* gene as being significantly associated with asthma ($P= 0.04-0.000003$). They estimate the gene could play a significant role in up to 40% of all asthma cases.

"Our studies suggest *ADAM33* plays a role in [airway] remodeling and may underlie abnormalities in asthmatic airway function," says Professor Stephen Holgate, a lead collaborator on the project from University of Southampton, [School of Medicine](#).

References

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