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★ Obesity (Jiao, 2011)

Hong Jiao, et al.
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Obesity

STUDY SUMMARY

An increased risk of obesity is associated with genetic variants in the KCNMA1 and BDNF genes.

STUDY DESCRIPTION


Obesity is defined as having an excess of body fat and is the sixth most important risk factor contributing to all diseases worldwide. In order to better understand the heritable component of obesity, this study performed a genome-wide study. By examining 4,838 obese and 5,827 lean individuals from Sweden, this study identified two novel genetic variants linked to an increased risk of obesity. The most significant genetic variant was located in the KCNMA1 gene - which is involved in the contraction of *smooth muscle* and in *neuronal* signaling. The study also confirmed the link between obesity and the BDNF gene that promotes survival, growth, and differentiation of *neurons*.

DID YOU KNOW?

You can prevent obesity at all stages of life. The longer babies are breastfed, the less likely they are to become overweight as they grow older. For children and adults, the ways to prevent obesity are fairly similar: eat balanced and healthy meals, exercise regularly (at least 30 minutes for adults and an hour for children most days of the week), and don't overeat.

YOUR DETAILED RESULTS

The variants highlighted in green have **positive effect sizes** and increase your genetic predisposition to obesity. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to obesity. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to obesity. However, please note that genetic predispositions do not account for important non-genetic factors like lifestyle. Furthermore, the genetics of most traits has not been fully understood yet and many associations between traits and genetic variants remain unknown. For additional explanations, click on the column titles in the table below and visit our [Nebula Library tutorial](#).

VARIANT [Ⓞ]	YOUR GENOTYPE [Ⓞ]	EFFECT SIZE [Ⓞ]	VARIANT FREQUENCY [Ⓞ]	SIGNIFICANCE [Ⓞ]
rs988712_G	G / G	0.31 (↑)	85%	5.20×10^{-17}
rs2116830_G 	G / T	0.23 (↑)	87%	2.80×10^{-10}