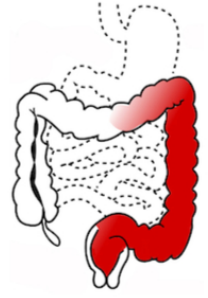


11/2009

☆ Ulcerative colitis (UK IBD Genetics Consortium, 2009)

UK IBD Genetics Consortium
Nature Genetics

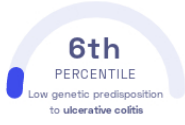
Autoimmunity Intestines



STUDY SUMMARY

Risk of ulcerative colitis may be influenced by variants that play a role in *cell adhesion*.

YOUR RESULT



STUDY DESCRIPTION

Ulcerative colitis occurs in the large intestine when the lining of the colon becomes inflamed, forming ulcers (open sores). To better understand the genetic risk factors that may predispose a person to ulcerative colitis, this genome-wide association study examined 15,554 individuals of European descent. The study found variants near 3 genes that are associated with ulcerative colitis. The first variant was near the HNF4A gene, which plays a role in *cell adhesion*. The next significant variant, near the LAMB1 gene, helps cells stay attached to the walls in the intestines. The third variant was the CDH1 gene which was previously known to play a role in ulcerative colitis. Like the HNF4A gene, it helps cells adhere to one another.

DID YOU KNOW?

Dietary changes, such as increasing fiber and reducing dairy, may help prevent some of the symptoms of ulcerative colitis. Drinking plenty of water and eating smaller, frequent meals may also help manage the symptoms of this disease.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to ulcerative colitis we summed up the effects of genetic variants that were linked to ulcerative colitis in the study that this report is based on. These variants can be found in the table below. The variants highlighted in green have **positive effect sizes** and increase your genetic predisposition to ulcerative colitis. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to ulcerative colitis. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to ulcerative colitis. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for ulcerative colitis to be 0.26**. To determine whether your score is high or low, we compared it to the scores of 5,000 other Nebula Genomics users. We found that your polygenic score for ulcerative colitis is in the **6th percentile**. This means that it is higher than the polygenic scores 6% of people. We consider this to be a **low genetic predisposition to ulcerative colitis**. 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 [ⓘ]
rs6017342_C	A / A	0.16 (-)	52%	8.50×10^{-17}
rs1728785_C	A / C	0.16 (↑)	76%	2.80×10^{-8}
rs886774_G	G / A	0.10 (↑)	41%	3.00×10^{-8}