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☆ Severe aplastic anemia (Savage, 2020)

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Blood Autoimmunity

STUDY SUMMARY

Identification of 2 genomic regions associated with risk for severe aplastic anemia.

STUDY DESCRIPTION



Aplastic anemia is an autoimmune disease in which the bone marrow does not produce enough blood cells. In severe cases aplastic anemia can become life-threatening. This genome-wide association study sought to identify variants associated with risk of severe aplastic anemia by examining genetic information of nearly 3,000 individuals of European descent. The results indicated 2 genetic regions linked to the risk of severe aplastic anemia. Both genetic regions encode for proteins of the human leukocyte antigen (HLA) system that plays a role in the regulation of the immune system.

DID YOU KNOW?

Exposure to toxic chemicals like pesticides and insecticides can increase risk of aplastic anemia. The condition can also be a temporary side effect of radiation and chemotherapy used for treatment of cancer.

YOUR DETAILED RESULTS

The variants highlighted in green have **positive effect sizes** and increase your genetic predisposition to severe aplastic anemia. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to severe aplastic anemia. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to severe aplastic anemia. 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 [ⓘ]
rs1042151_G 	A / A	0.56 (-)	24%	1.94×10^{-13}
rs28367832_A 	A / G	0.40 (↑)	43%	7.27×10^{-9}