12/2016

Insomnia (Lane, 2016)

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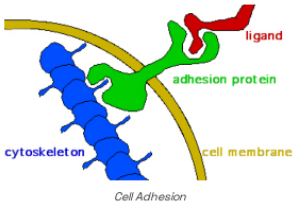
Nature Genetics

Sleep | Mind



Cell Adhesion

STUDY SUMMARY

This study identified several genetic variants that were associated with insomnia, including 2 that were gender-specific.

YOUR RESULT

STUDY DESCRIPTION

Insomnia is a sleep disorder that makes it difficult to fall or stay asleep. This study examined genetic variants associated with chronic sleep disturbances, which affect 25-30% of adults worldwide. The study examined 503,325 people living in the United Kingdom in order to identify several genetic variants linked to insomnia, which explained roughly 21% of the heritability for insomnia symptoms. Interestingly, this study also found one variant (in the TGFBI gene) significantly associated with insomnia only in females and another (in the WDR27 gene) that was only significant in males. The TGFBI gene plays a key role in *cell adhesion*, while the exact function of the WDR27 gene is relatively unknown. However, it is thought to be involved in cell signaling and protein-protein interactions.

DID YOU KNOW?

To try and prevent insomnia, you should avoid caffeine, alcohol, and heavy meals late in the day. Try to go to bed and get up at the same time each day. If you have trouble falling asleep, try relaxing before bed by reading a book, taking a bath, or making a to-do list if you're worried about the things you need to do in the morning.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to insomnia we summed up the effects of genetic variants that were linked to insomnia 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 insomnia. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to insomnia. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to insomnia. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for insomnia to be 0.87**. 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 insomnia is in the **100th percentile**. This means that it is higher than the polygenic scores 100% of people. We consider this to be a **very high genetic predisposition to insomnia**. 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
rs113851554_T NEW	G / T	0.23 (↑)	6%	9.11×10^{-19}
rs5922858_G NEW	G / G	0.11 (↑)	85%	1.28×10^{-8}
rs145258459_C NEW	C / C	0.21 (↑)	98%	2.13×10^{-8}