

02/2020

★ Opioid use (Polimanti, 2020)

Renato Polimanti, et al.
Molecular Psychiatry

Addiction

STUDY SUMMARY

Identification of 2 genetic variants associated with opioid use.

STUDY DESCRIPTION

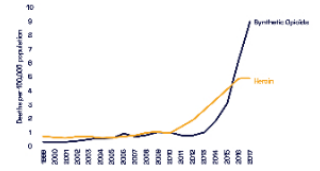
Opioids are substances commonly used to treat pain. However, opioids are highly addictive which can result in misuse and fatal overdoses. This genome-wide study of over 41,000 individuals of European and African descent investigated genetic contributions to opioid use and dependence. The study identified 2 variants associated with opioid use. One of the genetic variants has been previously associated with depression, alcoholism, and *neuroticism*. The researchers also found that opioid use and dependence are positively associated with polygenic scores for risk-tolerance and *neuroticism*.

DID YOU KNOW?

The risk of opioid dependence increases if opioids are not taken as prescribed. In particular, if tablets are crushed so that they can be injected or snorted. Another risk factor is the duration of an opioid treatment. Research suggests that after just five days, the risk of opioid dependence increases significantly.

YOUR DETAILED RESULTS

The variants highlighted in green have **positive effect sizes** and increase your genetic predisposition to opioid use. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to opioid use. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to opioid use. 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 [Ⓞ]
rs12461856_A NEW	A / G	-5.61 (↓)	84%	2.07×10^{-8}
rs9291211_A NEW	A / G	-5.39 (↓)	78%	7.16×10^{-8}