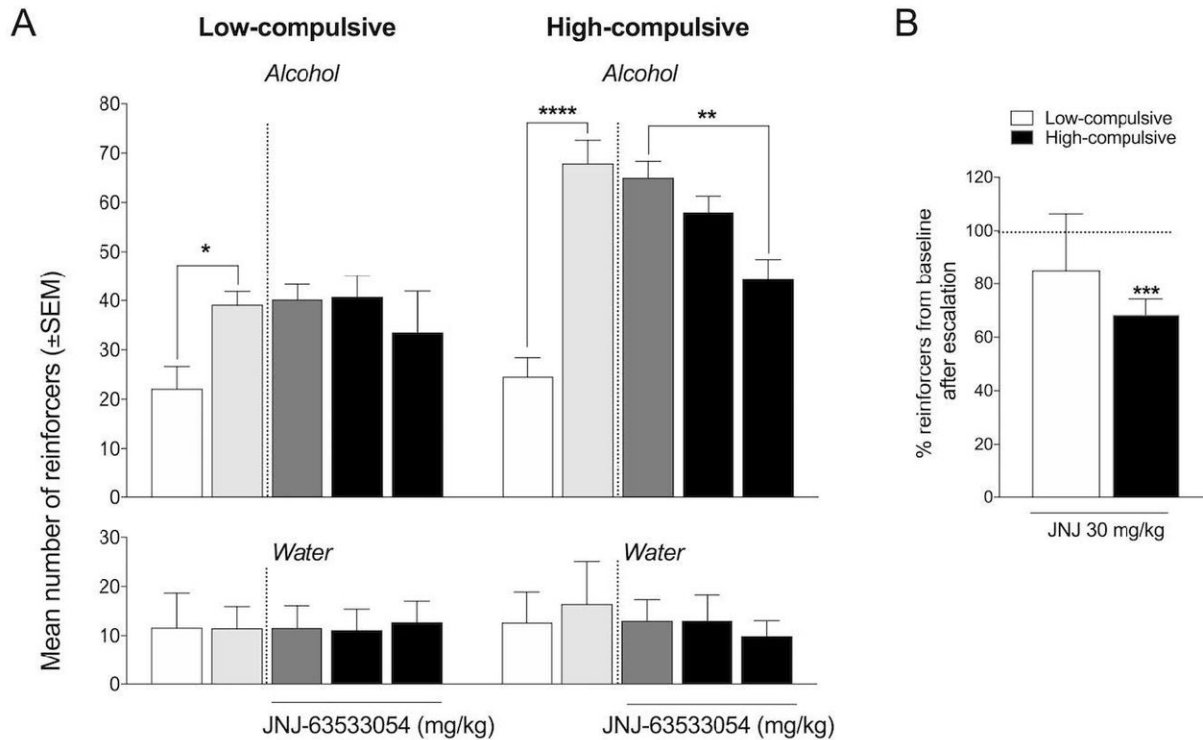


New target for treating alcoholism

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Activation of a receptor with no known function in the brain reduces excessive alcohol use and the pain of withdrawal, according to preclinical research in male rats. The study, published in *eNeuro*, suggests a new approach towards the treatment of alcohol use disorder. Credit: Kononoff et al., *eNeuro* (2018)

Activation of a receptor with no known function in the brain reduces excessive alcohol use and the pain of withdrawal, according to preclinical research in male rats. The study, published in *eNeuro*,

suggests a new approach towards the treatment of alcohol use disorder.

More than a third of approved pharmaceutical drugs target G protein-coupled receptors (GPCRs). One receptor belonging to this family, GPR139, is highly expressed in the habenula—a brain region with a critical role in addiction.

Olivier George and colleagues used a rat model of alcohol dependence and a substance that activates GPR139 to establish a previously unknown role for the receptor in addiction-like behavior. The researchers found that activation of GPR139 reduced [alcohol intake](#) and restored pain sensitivity thresholds only in alcohol-dependent mice that showed compulsive-like alcohol consumption akin to problematic drinking in humans.

This study is the first to establish an effect of GPR139 manipulation on behavior and encourages investigation of the receptor as a potential drug target in the development of medications for [alcohol dependence](#).

More information: Systemic and intra-habenular activation of the orphan G protein-coupled receptor GPR139 decreases compulsive-like alcohol drinking and hyperalgesia in alcohol-dependent rats, *eNeuro*, [DOI: 10.1523/ENEURO.0153-18.2018](https://doi.org/10.1523/ENEURO.0153-18.2018)

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