

Study looks at link between traumatic stress and alcohol abuse

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Sufferers of post-traumatic stress disorder (PTSD) are more likely to abuse alcohol, but Tulane University researcher [Jeffrey Tasker](#) is hoping a study of the brain can provide insight into the problem and catch it before it escalates.

“Humans with post-traumatic stress disorder are more likely to develop alcohol use disorder (AUD) than the general population, and AUD is the most commonly co-occurring mental health disorder in humans with PTSD,” Tasker said. “These conditions, separately and combined, affect millions of Americans, cause millions of deaths worldwide and cost society billions of dollars.”

Tasker, a professor of cell and molecular biology at the [Tulane Brain Institute](#) and the Catherine and Hunter Pierson Chair in Neuroscience, is teaming up on the study with Nicholas Gilpin, an associate professor of physiology at the LSU Health Sciences Center and associate director of the university's Alcohol and Drug Abuse Center of Excellence.

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Jeffrey Tasker, professor of cell and molecular biology at Tulane

"The aim of this grant is to determine whether there is a link between stress-induced alcohol consumption and the brain's cannabis signaling system in the part of the brain called the amygdala, which is responsible for assigning emotional valence to sensory experience," Tasker said.

The researchers will examine individual differences in traumatic stress effects on endogenous cannabinoid signalling in specific brain circuits in both male and female alcohol drinkers and manipulate those circuits to determine their role in post-stress escalation of alcohol drinking. They will use rats to study the neurobiology of the brain's endogenous cannabis system that underlies stress-induced alcohol consumption when subjected to a traumatic stress event such as predator exposure.

Tasker said the project, which is being funded by a five-year, \$1.8 million grant from the National Institutes of Health, will provide insight into mechanisms that determine one's resilience and susceptibility to the long-term consequences of traumatic stress exposure.