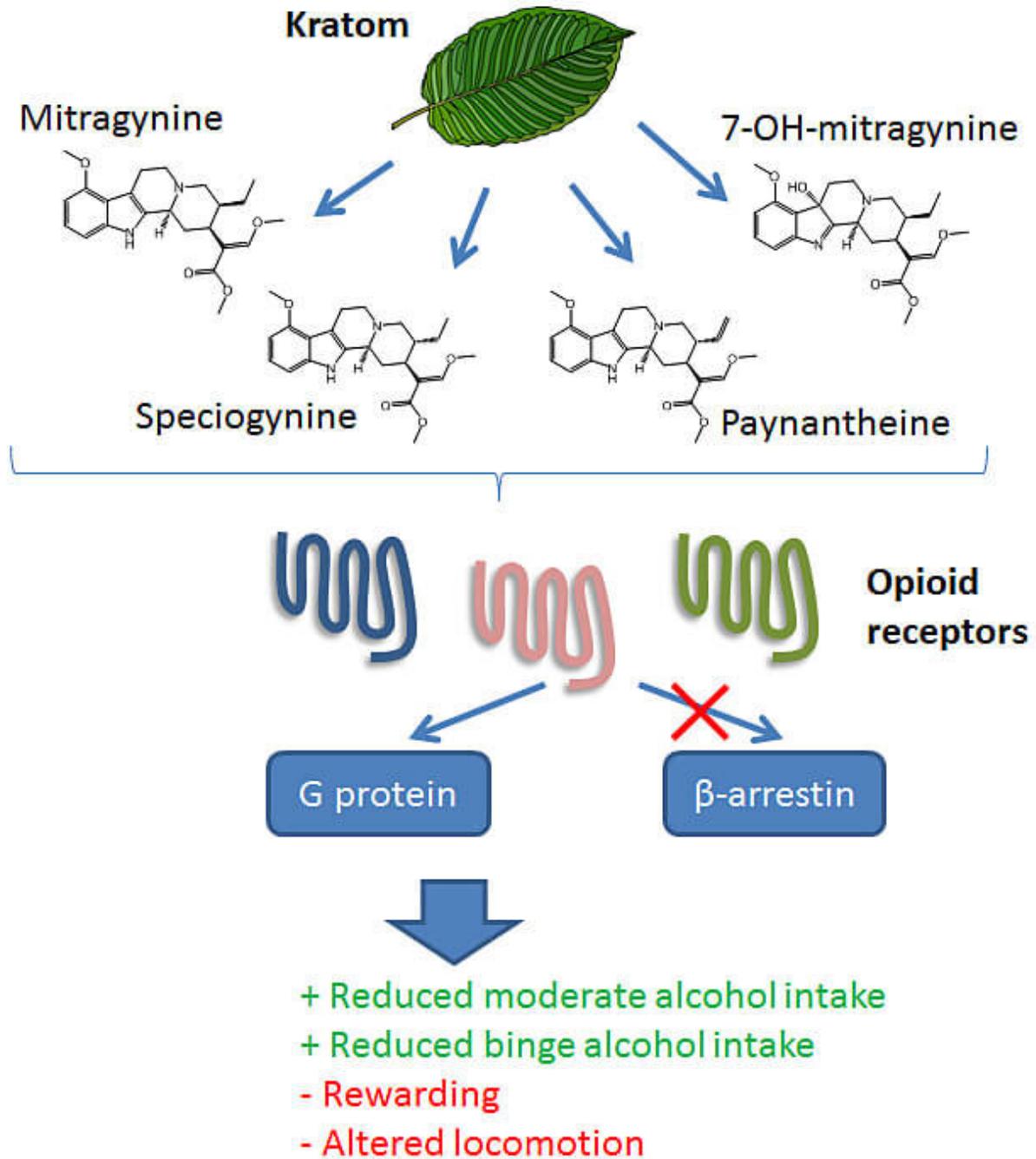


Opioid-based plant might not be best solution to curb habitual alcohol use

November 13 2019, by Chris Adam



A Purdue University team recently published a paper examining the effects of kratom and the potential impacts on people with alcohol use disorder. Credit: Purdue University/Richard van Rijn

Lawmakers across the United States continue to debate the safety of kratom, an opioid-containing plant that has been listed as a "drug of concern" by the U.S. Food and Drug Administration. Kratom is sold over the counter in specialty stores and online.

Substance use disorders are a major health concern in the U.S. and a growing number of people suffering from these diseases are self-medicating with [kratom](#) to help break a cycle of dependence. After tobacco, the most commonly abused substance in the U.S. is alcohol with nearly 15 million people diagnosed with an [alcohol use disorder](#).

A Purdue University team published a paper in the Nov. 8 edition of the *British Journal of Pharmacology* examining the effects of kratom and the potential impacts on people with alcohol use disorder. The cost to individuals and society from alcohol use is estimated at more than \$250 billion each year.

"One big challenge is that alcohol use disorder is not adequately treated with currently available medications; in fact less than 10% of patients receive treatment," said Richard van Rijn, an associate professor in Purdue's College of Pharmacy, who led the research team. "Few broadly effective drug therapies exist to treat alcohol use disorder, so finding new and better treatments is of critical importance to help people manage their disease."

The Purdue scientists, in collaboration with researchers at Memorial Sloan-Kettering and Washington University, studied the potential effects of kratom and its components on the body and in the ability to reduce alcohol consumption.

"Our work shows that kratom may be effective to self-medicate [alcohol](#) use disorder but is not entirely safe," van Rijn said. "Instead, our research provides additional support for other therapies that would not

produce the obvious side effects of using kratom, which may be addictive."

The Purdue team previously focused on a G protein-coupled receptor, called the delta opioid receptor, which is a novel drug target that is different from the receptor in the body that binds prescription opioids. They developed drugs that bind to this new target and selectively activate a particular protein signaling cascade of this receptor.

More information: Anna M. Gutridge et al, G protein-biased kratom-alkaloids and synthetic carfentanil-amide opioids as potential treatments for alcohol use disorder, *British Journal of Pharmacology* (2019). [DOI: 10.1111/bph.14913](https://doi.org/10.1111/bph.14913)

Provided by Purdue University

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