

Team leads world-first new treatment for alcohol addictions

April 14 2016



QUT neuroscientist Professor Selena Bartlett. Credit: Erika Fish/QUT Marketing & Communication

Alcohol addiction causes almost 3.8 per cent of deaths worldwide but a study led by QUT researchers offers new hope in the form of a drug



already approved by the Food and Drug Administration (FDA).

Neuroscientist Professor Selena Bartlett from QUT's Institute of Health and Biomedical Innovation said the drug, pindolol, is an inexpensive approach for treating alcohol dependence once the human clinical trials are conducted.

"Drugs currently used for AUDs (<u>alcohol use disorders</u>) - acamprosate, naltrexone and disulfiram - have limited success - so this is a ground-breaking development with enormous potential," said Professor Bartlett who is based at the Translational Research Institute.

"In an internationally-significant breakthrough, our study showed pindolol was able to reduce ethanol/alcohol consumption, particularly in relation to binge drinking, a key behaviour observed in human alcohol dependence."

The study has been published in *Addiction Biology*, the Journal of the Society for the Study of Addiction.

Researcher Omkar Patkar said the <u>preclinical study</u> is the first step towards fast tracking pindolol into human clinical studies as a treatment option for AUDs.

"Pindolol is an FDA-approved beta blocker already used to treat <u>high</u> <u>blood pressure</u> and angina," said Mr Patkar.

"Data collected from our study found that pindolol diminishes ethanol intake in animal models of binge-alcohol consumption.

"More research is required but we believe the results from our study show that pindolol represents a novel, safe and ready to test treatment therapy option for managing <u>alcohol dependence</u> in humans."



More information: Omkar L. Patkar et al. The antihypertensive drug pindolol attenuates long-term but not short-term binge-like ethanol consumption in mice, *Addiction Biology* (2016). DOI: 10.1111/adb.12359

Provided by Queensland University of Technology

Citation: Team leads world-first new treatment for alcohol addictions (2016, April 14) retrieved 27 April 2024 from

https://medicalxpress.com/news/2016-04-team-world-first-treatment-alcohol-addictions.html

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