

Accepted Manuscript

Title: Insulin dependent and independent normalization of blood glucose levels reduces the enhanced rewarding effects of nicotine in a rodent model of diabetes

Authors: Javier Íbias, Laura E. O'Dell, Arbi Nazarian

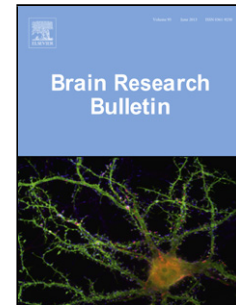
PII: S0166-4328(17)31855-7
DOI: <https://doi.org/10.1016/j.bbr.2018.05.018>
Reference: BBR 11439

To appear in: *Behavioural Brain Research*

Received date: 16-11-2017
Revised date: 2-5-2018
Accepted date: 17-5-2018

Please cite this article as: Íbias J, O'Dell LE, Nazarian A, Insulin dependent and independent normalization of blood glucose levels reduces the enhanced rewarding effects of nicotine in a rodent model of diabetes, *Behavioural Brain Research* (2018), <https://doi.org/10.1016/j.bbr.2018.05.018>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Insulin dependent and independent normalization of blood glucose levels reduces the enhanced rewarding effects of nicotine in a rodent model of diabetes

Javier Íbias¹, Laura E. O'Dell², Arbi Nazarian^{1*}

1. *Department of Pharmaceutical Sciences, Western University of Health Sciences, Pomona, CA, USA.*
2. *Department of Psychology, University of Texas at El Paso, El Paso, TX, USA.*

*Correspondence: Arbi Nazarian, Ph.D., Department of Pharmaceutical Sciences, Western University of Health Sciences, 309 E. Second Street, Pomona, CA 91766, U.S.A. Tel: (909) 469-5424, Email: anazarian@westernu.edu

Highlights

- STZ-treated male rats show an enhancement in nicotine CPP more so than control rats
- Insulin and dapagliflozin normalize blood glucose level of STZ-treated rats
- Insulin and dapagliflozin reduce the enhanced nicotine CPP of STZ-treated rats
- Enhanced nicotine CPP of STZ-treated rats is due to an increase in glucose levels

Abstract

The rewarding effects of nicotine have been previously shown to be enhanced in rodent models of diabetes. It is presently unclear whether the enhanced nicotine reward observed in the diabetes models are mediated via an insulin or glucose mechanism. This study examined whether the enhanced rewarding effects of nicotine observed in streptozotocin (STZ)-treated rats are insulin-

Download English Version:

<https://daneshyari.com/en/article/8837674>

Download Persian Version:

<https://daneshyari.com/article/8837674>

[Daneshyari.com](https://daneshyari.com)