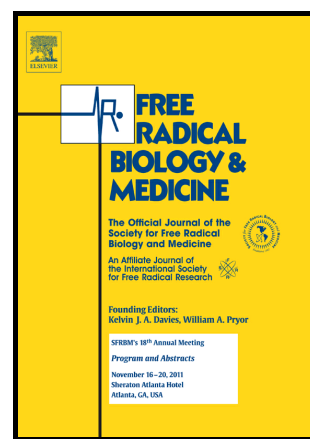


Author's Accepted Manuscript

Antioxidants Reduce Neurodegeneration and Accumulation of Pathologic Tau Proteins in the Auditory System after Blast Exposure

Xiaoping Du, Matthew B. West, Qunfeng Cai, Weihua Cheng, Donald L. Ewert, Wei Li, Robert A. Floyd, Richard D. Kopke



www.elsevier.com

PII: S0891-5849(17)30546-4
DOI: <http://dx.doi.org/10.1016/j.freeradbiomed.2017.04.343>
Reference: FRB13318

To appear in: *Free Radical Biology and Medicine*

Received date: 28 November 2016
Revised date: 17 April 2017
Accepted date: 21 April 2017

Cite this article as: Xiaoping Du, Matthew B. West, Qunfeng Cai, Weihua Cheng, Donald L. Ewert, Wei Li, Robert A. Floyd and Richard D. Kopke Antioxidants Reduce Neurodegeneration and Accumulation of Pathologic Tau Proteins in the Auditory System after Blast Exposure, *Free Radical Biology and Medicine*, <http://dx.doi.org/10.1016/j.freeradbiomed.2017.04.343>

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 galley proof before it is published in its final citable 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

Antioxidants Reduce Neurodegeneration and Accumulation of Pathologic Tau Proteins in the Auditory System after Blast Exposure

Xiaoping Du^{a1}, Matthew B. West^{a1}, Qunfeng Cai^a, Weihua Cheng^a, Donald L. Ewert^a, Wei Li^a, Robert A. Floyd^b, Richard D. Kopke^{a,b,c*}

^aHough Ear Institute, Oklahoma City, OK, USA

^bOklahoma Medical Research Foundation, Oklahoma City, OK, USA

^cDepartments of Physiology and Otolaryngology, University of Oklahoma Health Sciences Center, Oklahoma City 73014

* **Corresponding author:** Richard Kopke, MD. Hough Ear Institute, 3400 N.W. 56th Street, Oklahoma City, OK 73112, USA, Tel.: 405 639-2876; fax: 405 947-6226;

E-mail address: rkopke@houghear.org (R. Kopke).

Abstract

Cochlear neurodegeneration commonly accompanies hair cell loss resulting from aging, ototoxicity, or exposures to intense noise or blast overpressures. However, the precise pathophysiological mechanisms that drive this degenerative response have not been fully elucidated. Our laboratory previously demonstrated that non-transgenic rats exposed to blast overpressures exhibited marked somatic accumulation of neurotoxic variants of the microtubule-associated protein, Tau, in the hippocampus. In the present study, we extended these analyses to examine neurodegeneration and pathologic Tau

¹ Xiaoping Du and Matthew B. West contributed equally to this work.

Download English Version:

<https://daneshyari.com/en/article/5502068>

Download Persian Version:

<https://daneshyari.com/article/5502068>

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