

## Accepted Manuscript

Title: RENAL EXPRESSION OF ORGANIC ANION TRANSPORTERS IS MODIFIED AFTER MERCURIC CHLORIDE EXPOSURE: GENDER-RELATED DIFFERENCES

Authors: María H. Hazelhoff, Romina P. Bulacio, Alberto Chevalier, Adriana M. Torres

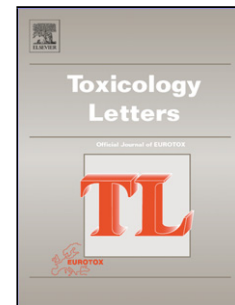
PII: S0378-4274(18)31503-0  
DOI: <https://doi.org/10.1016/j.toxlet.2018.07.016>  
Reference: TOXLET 10274

To appear in: *Toxicology Letters*

Received date: 22-5-2018  
Revised date: 5-7-2018  
Accepted date: 16-7-2018

Please cite this article as: Hazelhoff MH, Bulacio RP, Chevalier A, Torres AM, RENAL EXPRESSION OF ORGANIC ANION TRANSPORTERS IS MODIFIED AFTER MERCURIC CHLORIDE EXPOSURE: GENDER-RELATED DIFFERENCES, *Toxicology Letters* (2018), <https://doi.org/10.1016/j.toxlet.2018.07.016>

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.



## RENAL EXPRESSION OF ORGANIC ANION TRANSPORTERS IS MODIFIED AFTER MERCURIC CHLORIDE EXPOSURE: GENDER-RELATED DIFFERENCES.

María H. HAZELHOFF<sup>a</sup>, Romina P. BULACIO<sup>a</sup>, Alberto CHEVALIER<sup>b</sup> and Adriana M. TORRES<sup>a, \*</sup>

<sup>a</sup>Área Farmacología, Facultad de Ciencias Bioquímicas y Farmacéuticas. Universidad Nacional de Rosario. CONICET, Suipacha 531, S2002LRK, Rosario, Santa Fe, Argentina

<sup>b</sup>GIHON Laboratorios Químicos SRL, Facultad de Ciencias Exactas. Universidad Nacional de Mar del Plata, Dean Funes 3350, B7602AYL, Mar del Plata, Buenos Aires, Argentina

\*Corresponding author: Adriana M. Torres, admotorres@yahoo.com.ar, Tel: 0054-341-4393400.

### HIGHLIGHTS

- HgCl<sub>2</sub> increases expression of Oat1 and Mrp2 in both sexes and Oat3 only in females
- Increases in Oat1 and Mrp2 renal abundance were greater in females than in males
- Females had greater urinary excretion of mercury
- Females had lesser renal tubular injury induced by HgCl<sub>2</sub> than males
- The regulation of drug transporters by HgCl<sub>2</sub> is of high pharmacological importance

### ABSTRACT

Mercuric ions (Hg<sup>+2</sup>) gain access to proximal tubule cells primarily by the Organic Anion Transporter 1 (Oat1) and 3 (Oat3) in the basolateral plasma membrane. The removal process of Hg<sup>+2</sup> ions from cells into the lumen involves an efflux process mainly mediated by the Multidrug Resistance-Associated Protein 2 (Mrp2). The aim of this study was to compare the sex-related differences in the renal expression of Oat1, Oat3, and Mrp2 after mercuric chloride (HgCl<sub>2</sub>) treatment and analyze their relevance in the mercury-induced

Download English Version:

<https://daneshyari.com/en/article/8553151>

Download Persian Version:

<https://daneshyari.com/article/8553151>

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