

## Accepted Manuscript

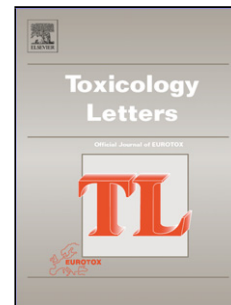
Title: Renal tubular damage caused by cylindrospermopsin (cyanotoxin) in mice

Authors: A.C.N. Moraes, V.F. Magalhães

PII: S0378-4274(17)31538-2  
DOI: <https://doi.org/10.1016/j.toxlet.2017.12.028>  
Reference: TOXLET 10060

To appear in: *Toxicology Letters*

Received date: 31-5-2017  
Revised date: 24-11-2017  
Accepted date: 31-12-2017



Please cite this article as: Moraes, A.C.N., Magalhães, V.F., Renal tubular damage caused by cylindrospermopsin (cyanotoxin) in mice. *Toxicology Letters* <https://doi.org/10.1016/j.toxlet.2017.12.028>

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 tubular damage caused by cylindrospermopsin (cyanotoxin) in mice

A.C.N. Moraes<sup>\*</sup>, V.F. Magalhães<sup>\*-</sup>

<sup>\*</sup> Laboratory of Ecophysiology and Toxicology of Cyanobacteria, Institute of Biophysics Carlos Chagas Filho, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

Corresponding author at: 373 Carlos Chagas Filho Avenue, Cidade Universitária - Ilha do Fundão 21941-902 Rio de Janeiro – RJ, BR Tel: (55) 21 3938-6648 or (55) 21 3938-6647 <http://letc.biof.ufrj.br/>

E-mail address: [valeria@biof.ufrj.br](mailto:valeria@biof.ufrj.br) (Valéria Freitas de Magalhães)

## Highlights

- CYN has no effect in the glomerular filtration rate or nephrin expression in BALB-C mice.
- Low-molecular-weight proteinuria, increased excretions of the tubular enzymes lactate dehydrogenase (LDH) and gamma-glutamyl transferase (GGT) are an important consequence to CYN intoxication.
- Other outcomes to CYN toxicity are the increase in the renal interstitial space and collagen deposition.
- CYN exposure leads to tubular damage.

## Abstract

Cylindrospermopsin (CYN) is a cyanotoxin and a hydrophilic alkaloid of 415 Da. The principal effect of CYN is the inhibition of protein synthesis, and it can damage various organs. Studies have demonstrated that the kidney is the

Download English Version:

<https://daneshyari.com/en/article/8553411>

Download Persian Version:

<https://daneshyari.com/article/8553411>

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