## Accepted Manuscript

Title: Stage specific effects of soluble copper and copper oxide nanoparticles during sea urchin embryo development and their relation to intracellular copper uptake

Authors: Cristina Torres-Duarte, Karla M. Ramos-Torres,

René Rahimoff, Gary N. Cherr

PII: S0166-445X(17)30135-2

DOI: http://dx.doi.org/doi:10.1016/j.aquatox.2017.05.008

Reference: AQTOX 4656

To appear in: Aquatic Toxicology

Received date: 19-2-2017 Revised date: 16-5-2017 Accepted date: 18-5-2017

Please cite this article as: Torres-Duarte, Cristina, Ramos-Torres, Karla M., Rahimoff, René, Cherr, Gary N., Stage specific effects of soluble copper and copper oxide nanoparticles during sea urchin embryo development and their relation to intracellular copper uptake. Aquatic Toxicology http://dx.doi.org/10.1016/j.aquatox.2017.05.008

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.



## ACCEPTED MANUSCRIPT

Stage specific effects of soluble copper and copper oxide nanoparticles during sea urchin embryo development and their relation to intracellular copper uptake

Cristina Torres-Duarte<sup>1</sup>, Karla M. Ramos-Torres<sup>2</sup>, René Rahimoff<sup>3</sup>, and Gary N. Cherr<sup>1,4\*</sup>

- <sup>1</sup> Bodega Marine Laboratory, University of California Davis, Bodega Bay, California, USA
- <sup>2</sup> Department of Chemistry, University of California Berkeley, Berkeley, California, USA
- <sup>3</sup> Department of Chemistry Pharmacy, Ludwig-Maximilians-Universität München, Munich, Germany
- <sup>4</sup> Departments of Environmental Toxicology and Nutrition, University of California Davis, Davis, California, USA
- \* Correspondence:

Gary N. Cherr

Bodega Marine Laboratory

University of California Davis

**PO Box 247** 

Bodega Bay, CA 94951 USA

E-mail:gncherr@ucdavis.edu

Highlight for

Stage specific effects of soluble copper and copper oxide nanoparticles during sea urchin embryo development and their relation to intracellular copper uptake

Cristina Torres-Duarte<sup>1</sup>, Karla M. Ramos-Torres<sup>2</sup>, René Rahimoff<sup>3</sup>, and Gary N. Cherr<sup>1,4\*</sup>

- $^{\rm 1}$ Bodega Marine Laboratory, University of California Davis, Bodega Bay, California, USA
- <sup>2</sup> Department of Chemistry, University of California Berkeley, Berkeley, California, USA
- <sup>3</sup> Department of Chemistry Pharmacy, Ludwig-Maximilians-Universität München, Munich, Germany
- <sup>4</sup> Departments of Environmental Toxicology and Nutrition, University of California Davis, Davis, California, USA
- \* Correspondence:

Gary N. Cherr

**Bodega Marine Laboratory** 

University of California Davis

## Download English Version:

## https://daneshyari.com/en/article/5764181

Download Persian Version:

https://daneshyari.com/article/5764181

**Daneshyari.com**