

Accepted Manuscript

Nickel toxicity in *P. lividus* embryos: Dose dependent effects and gene expression analysis

Rosa Bonaventura, Francesca Zito, Marco Chiaramonte, Caterina Costa, Roberta Russo



PII: S0141-1136(17)30798-5

DOI: [10.1016/j.marenvres.2018.05.002](https://doi.org/10.1016/j.marenvres.2018.05.002)

Reference: MERE 4516

To appear in: *Marine Environmental Research*

Received Date: 29 December 2017

Revised Date: 29 March 2018

Accepted Date: 3 May 2018

Please cite this article as: Bonaventura, R., Zito, F., Chiaramonte, M., Costa, C., Russo, R., Nickel toxicity in *P. lividus* embryos: Dose dependent effects and gene expression analysis, *Marine Environmental Research* (2018), doi: 10.1016/j.marenvres.2018.05.002.

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.

Nickel toxicity in *P. lividus* embryos: dose dependent effects and gene expression analysis

Rosa Bonaventura*, Francesca Zito, Marco Chiaramonte, Caterina Costa, Roberta Russo

Consiglio Nazionale delle Ricerche, Istituto di Biomedicina e Immunologia Molecolare "A. Monroy", Via Ugo La Malfa 153, 90146 Palermo, Italy

* Corresponding author:

Rosa Bonaventura

National Research Council

Institute of Biomedicine and Molecular Immunology "A. Monroy"

Via Ugo La Malfa, 153 - 90146 Palermo, Italy

tel: +39-091-6809591; fax: +39-091-6809548

rosa.bonaventura@ibim.cnr.it

Consiglio Nazionale delle Ricerche, Istituto di Biomedicina e Immunologia Molecolare "A. Monroy", Via Ugo La Malfa 153, 90146 Palermo, Italy

Short title: Nickel is toxic and affects gene expression in sea urchin

Download English Version:

<https://daneshyari.com/en/article/8886237>

Download Persian Version:

<https://daneshyari.com/article/8886237>

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