CORRECTION

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Cite this: *Environ. Sci.: Nano*, 2017, 4, 1761

Correction: Activation of antioxidant and detoxification gene expression in cucumber plants exposed to a Cu(OH)₂ nanopesticide

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DOI: 10.1039/c7en90033c

rsc.li/es-nano

Correction for 'Activation of antioxidant and detoxification gene expression in cucumber plants exposed to a Cu(OH)₂ nanopesticide' by Lijuan Zhao *et al.*, *Environ. Sci.: Nano*, 2017, DOI: 10.1039/c7en00358g.

Due to an error in the production process, the Environmental significance statement was not included in the article. The Environmental significance statement is given below.

Environmental significance

We investigated the physiological and molecular response of cucumber plants to a Cu(OH)₂ nanopesticide. We demonstrated that foliar exposure to the nanopesticide increases the expression levels of several key antioxidant and detoxification related genes (*SOD*, *GPX4*, *GPX*, *MDAR*, *POD*, and *WRKY6*). This indicates that the Cu(OH)₂ nanopesticide induces oxidative stress and activates the antioxidant defense system in the plants. Exposure to Cu²⁺ from CuSO₄ also increased the transcript production of the *SOD*, *GPX4*, *GPX*, *MDAR*, *POD*, and *WRKY6* genes, and also increased transcription of *WRKY30*, *GST*, *CAT*, *APX* and *GPX2* genes. In addition, Cu²⁺ activated two regulatory genes (*RBOH* and *MAP3K3*), which was not observed in plants treated with Cu(OH)₂ nanopesticide. The up-regulation of the expression levels of those genes are a protective mechanism for cucumber plants. These results provide a deeper understanding of the antioxidant defense responses in plants exposed to Cu(OH)₂ nanopesticides and may be applicable to other plant/nanopesticide interactions.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

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