

## Accepted Manuscript

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PII: S1357-2725(18)30036-0  
DOI: <https://doi.org/10.1016/j.biocel.2018.02.008>  
Reference: BC 5305

To appear in: *The International Journal of Biochemistry & Cell Biology*

Received date: 21-7-2017  
Revised date: 21-12-2017  
Accepted date: 12-2-2018

Please cite this article as: Alibrahim, Eid Alabed., Andriansitohaina, Ramaroson., Hardonnière, Kévin., Soleti, Raffaella., Faure, Sébastien., & Simard, Gilles., A redox-sensitive signaling pathway mediates pro-angiogenic effect of chlordecone via estrogen receptor activation. *International Journal of Biochemistry and Cell Biology* <https://doi.org/10.1016/j.biocel.2018.02.008>

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## A redox-sensitive signaling pathway mediates pro-angiogenic effect of chlordecone *via* estrogen receptor activation

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Text 27523 words; References: 45; figures: 10

### ABSTRACT

**Aim:** Chlordecone is able to induce pro-angiogenic effect through an estrogen receptor (ER $\alpha$ ) pathway involving NO release and VEGF. The present study aimed to determine the molecular mechanisms by which chlordecone promotes angiogenesis in human endothelial cells.

**Results:** High but not low concentration of chlordecone increased mitochondrial respiratory capacity and mitochondrial DNA content in endothelial cells. The ROS scavenger MnTMPyP was able to prevent the increase of both VEGF expression and capillary length induced by chlordecone. A significant increase of cytoplasmic O<sub>2</sub><sup>-</sup> production was observed after 1 and 4

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