Review of: "Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (Danio rerio)"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

The manuscript in entitled "Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (Danio rerio)" is well written and organized. It described the toxic effects of pentachlorophenol on the hematopoietic development of the model organism zebrafish, an aquatic vertebrate species, and found it could cause severe developmental abnormalities in zebrafish. This will advance our knowledge about side effects of pentachlorophenol on aquatic species, which make it be deserved being published in PLOS ONE. However, there are still some room to be improved, as shown in the following:

1. Introduction

There is no information on concentrations of pentachlorophenol in the aquatic environment, please added.

1. Materials and methods

Descriptions of protocols should include report of times of repetition used to determine a given endpoint or parameter. If gene expression in a given qRT-PCR assay were measured in duplicate or triplicate that should be defined for the reader and the number of embryos also should be reported.

For qRT-PCR assay, why choose ef1a as an internal reference? Is the expression of this gene stable after pentachlorophenol treatment.

1. Results

In Figure 1, explain why the phenotype is lighter at 100 μg/L than at 50 μg/L.