Reviewer’s report

**Title:** Para-occupational exposure to pesticides, PON1 polymorphisms and hypothyroxinemia during the first half of pregnancy in women living in a Mexican floricultural area.

**Version:** 1  **Date:** 02 Mar 2019

**Reviewer:** Robert Barouki

**Reviewer’s report:**

The only significant observation made by this study is the association between PON1 polymorphism and hypothyroxinemia (whatever the actual reason is). This is actually stressed in the abstract.

Concerning the relationship between para-occupational exposure, OP pesticides and hypothyroxinemia, little can be concluded. The additional pesticide assays the authors made to address the reviewers criticisms are not conclusive. The differences the authors signal are not significant and far from being so.

The authors should not state "Para-occupationally exposed women had higher median urinary total DAP concentration (1.16 μmol/gr creatinine) than those who did not (0.83 μmol/gr creatinine), although this difference was not statistically significant p=0.56 " . They can only say that they found no significant difference. Therefore at this stage they can say that there is no correlation between hypothyroxinemia and para-occupational exposure in this particular study, however they cannot claim that there is no correlation between hypothyroxinemia and OP pesticides. It is quite possible that the control group in this study is also highly exposed through other pathways. This should be clearly stated by the authors.

**Level of interest**

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An article whose findings are important to those with closely related research interests

**Quality of written English**

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Acceptable

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Concerning point 1, I have received reimbursements for meeting conferences from academic societies that may themselves have received funding from private companies.

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