Reviewer's report

Title: Prenatal polychlorinated biphenyl exposure is associated with decreased gestational length but not birth weight in a prospective cohort study.

Version: 1 Date: 3 April 2012

Reviewer: Giuseppe De Palma

Reviewer's report:

The paper by Kezios KL et al, is an interesting report on a large study showing the effects of past exposure levels to PCB on gestational length.

Before acceptance for publication, the paper requires, however some improvements, including a careful editing of English language

Main issues
- Bibliography is not enough updated. For instance a recent paper by Bergonzi et al, 2011 is not cited and discussed, as well as a previous paper by the same author on PCBs and thyroid function;

- In the abstract, Methods section, the authors declare to have measured 11 PCB congeners but in the manuscript, Laboratory analysis, we read of 10 congeners; Table 2 mentions PCB 194 that is not reported in Laboratory analysis; in Statistics and in Results we know that also p,p'-DDE has been determined and then also p,p'DDT and o,p'DDT. Authors should give more consistence to their materials;

- Page 19, line 23, it is a long time that the activation of CYP1A1 by AhR receptor is known! Hence, “recent” shoul be cleared;

- Page 20, results should be compared with studies such as that by Bergonzi et al 2011 on recent PCB levels and birth outcomes; such study evaluates the effects of other OC compounds such as p,p'-DDE, HCB and p,p'-DDT.

Minor issues:
- Page 6, line 5 “from labor and delivery records”: it is not clear;
- Page 6, line 10: OC is for organochlorine but authors should specify this previously;
- Page 7, line 22 “reported PCB values” is not enough clear, please give an explanation;
- Page 11, line 15 “consideration” instead of “considering”?

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests