Reviewer's report

Title: Effects of arsenic exposure on DNA methylation in cord blood samples from newborn babies and in a human lymphoblast cell line

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Reviewer: William Au

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Ponpat Intarasunanont et al., had conducted an in utero and in vitro study to investigate the toxicity of arsenic. In the in utero study, they used cord blood, finger nail, toe nail and hair samples to determine the body burden of arsenic and the methylation status at the promoter region of p53. The study shows a significant association between the methylation status and arsenic exposure. In addition, they have conducted an in vitro exposure study. The latter study provided support of the in utero study. Overall, the study was designed well and used state of the art technology. In addition, the interpretation of the study result is appropriate.

I have no specific criticism of the paper.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

No