



## SDI FINAL EVALUATION FORM 1.1

### PART 1:

Journal Name:	<a href="#">Asian Journal of Research and Reports in Endocrinology</a>
Manuscript Number:	Ms_AJRRE_48091
Title of the Manuscript:	EVALUATION OF ACUTE AND CHRONIC TOXICITY OF TARTRAZINE (E102) ON STERIOD REPRODUCTIVE HORMONES OF ALBINO RATS
Type of Article:	Original Research Article

### PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
<p>The study could have been much more specific as related to effects on reproductive efficiencies. Simply measuring the steroid hormones particularly in acute toxicity is not going to reflect that the drug has significant effect on reproduction. For ascertaining the effect one has to be specific e.g. author could have studied histological changes in gonads, status of enzymes related to synthesis of steroid reproductive hormones.</p> <p>Secondly study must be with defined hypothesis rather than revalidation of earlier studies.</p> <p>Which is still to be justified, is that in your study you have calculated LD 50 of tartrazine to be 5.83g/kg and 11.25g/kg for intraperitoneal and orally treated rats respectively which means 50 % tested population dies at these doses, whereas you have used 8.33 and 20 g/kg in acute treatments where one should expect more than 50% mortality in treated rats which is to be explained.</p>	<p>Ok. Thank you for your thorough review. I am happy because it will definitely improve the quality of this paper. We did not just measure the effect of the drug on hormones. We also did histopathologic examinations of the gonads and other organs (kidney, liver and pancreas) (We initially thought of publishing the histopathological aspect of our work separately). However, we did not do any investigations concerning the status of enzymes related to synthesis of steroid reproductive hormones. On that note, we have added the histological examinations of the gonads in this revised manuscript but we will state that 'the status of enzymes related to synthesis of steroid reproductive hormones were not investigated' as the limitation of our study.</p> <p>We believe that the use of literatures on a 'subject matter' to support our finding(s) is not necessarily revalidating earlier studies. However, I think, I do understand your point, which is why we have added the histological examinations of the gonads to support our finding(s) with respect to the hormones.</p> <p>In acute study, the investigation involved careful observation for 24 hours looking out for signs and symptoms of toxicity such dizziness, sedation, pigmentation of skin and eyes, coma and death. We also kept records (time of onset) of when the signs and symptoms of toxicity occurred. So, while observing, rats that were already into coma and were no longer responding to agitation; that is, at the point of death (especially for those rats treated with higher doses above the LD50) were subjected to cardiac puncture and eventually, the collection of tissues. Therefore, at 8.33 and 20.0g/kg the mortality was 100% but we collected samples as explained earlier. Details of the LD50 and percentage mortality are in one of our papers titled: Pilot and acute toxicity of tartrazine in albino rats. <a href="https://www.ejpmr.com/admin/assets/article_issue/1507713465.pdf">https://www.ejpmr.com/admin/assets/article_issue/1507713465.pdf</a>. I will be glad to receive your valuable inputs, suggestions and comments. Once more, thank you.</p>