



SDI Review Form 1.6

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	MS: 2012/BJAST/1819
Title of the Manuscript:	EFFECTS OF INJECTED N-METHYL-N-NITROSOUREA (MNU) IN ALBINO MICE ON THE HISTOLOGY AND HAEMATOLOGY OF SELECTED ORGANS OF THE CIRCULATORY, LYMPHOID AND DIGESTIVE SYSTEMS

General guideline: Reviewers are requested to follow these guidelines during review: *(Note: Title of different sections as proposed below may differ in case of review paper / case reports)*

- Introduction *(Is the problem/objective of this study original, important and well defined?)*
- Materials & methods *(Kindly comment on the suitability of the methods. Sufficient details of the methods should be provided to allow peers to evaluate and/or replicate the work)*
- Results & discussion *(Kindly comment on: 1. Are the data well controlled and robust? 2. Authors should provide relevant references during discussion. 3. Discussion and conclusions should be based on actual facts and figures. Biased claims should be pointed out. 4. Are statistical analyses must for this paper? If yes, have sufficient and appropriate statistical analyses been carried out?)*
- Conclusion *(Is the conclusion supported by the data, discussed inside the manuscript? Conclusions should not be biased and should be based on the data, presented inside the manuscript only)*
- Are all the references cited relevant, adequate? Are there any other suitable current references authors need to cite?
- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part and write here 'Corrected'/ if not agreed, give suitable justifications)
<u>COMPULSORY REVISION</u> comments	The authors must provide more information about the statistical analysis of this work. The histological figures must specify how many mice from each cohort (Mi, Mc, Fi, Fc) exhibited the histology indicated in the figure. While it is acceptable to utilize a representative figure, the reader needs to know if this pathology occurred in one, or eight, of the mice in the cohort. These figures need to be uniform in specifying male/female (not all figures specify). Importantly, the overall statistical analysis requested above should consider the gender of the cohorts. Is there a gender difference for any organ? The Results section, lines 153 to 160, needs to be clarified. At first the paragraph says that there is no difference between Mi and Mc (which is corroborated by Fig. 1). Then it says there IS a difference for the female mice, which is corroborated by Fig. 1, but the p value is not specified. Please specify the p value. Then it says that the average weight of male mice was 0.15 g more than control, but this does not seem to be corroborated. Table 1 needs additional clarification. There are two lines of data for each cohort, together with the Means $\pm$ SD. The paper does not specify what those two lines are.	Corrected, lines 134-138. Corrected, lines 170-171. Corrected lines 203-246. Corrected, lines 143-151. Corrected, line 274.



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	Perhaps it is two mice? If only two mice were used for this part of the study, the authors should explain why that number is sufficient. The data for WBC in the Fc and Fi cohorts appears to contain errors. Statistical analyses of these data need to be refined. In the text (lines 340 to 346 Results and 27-31 Abstract), it is stated that some parameters were increased, but that nothing reached $p < 0.05$. If it doesn't reach the selected p value, it is not increased, and the words should more precisely specify that. Further, if these observations were based on a sample size of two mice, it is certainly not to be considered an increase.	Corrected, lines 125-127. Corrected, line 266. Corrected, line 18 (abstract); Corrected, lines 255-258.
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<u>Minor</u> REVISION comments	Please be very clear about administration of MNU; typically this occurs ONCE per animal. Line 30 (Abstract) says that “Exposure to MNU ... over a 28-week period caused ...” Line 111 (Methods) says “50 mg/kg doses ...” (emphasis mine). This could be interpreted to mean that mice were given repeated injections of MNU, but this is not how the model is typically used. Since the half-life of MNU <i>in vivo</i> is a few minutes at most, these animals were not exposed to MNU over 28 weeks if they were given a single bolus injection. The “neck” tumor should be explained more fully. Was that in a female mouse? The tumor appears to be along the mammary line, and may, in fact, be a mammary tumor.	Corrected, line 83. Corrected, lines 154-156. Corrected lines 359-363.
<u>Optional/General</u> comments	This paper comprises a compendium of information that may be useful for other workers. In the Discussion section, additional comparisons across species and across routes of administration may add value. For example, in Sprague Dawley rats, administration is often intravenous, leading to mammary cancers. Do the authors believe that choice of species and choice of route of administration would lead preferentially to certain types of cancers? Further, age of the animals is thought to make a difference, at least for induction of mammary cancer; investigators often use 50 day old rats because the mammary gland is rapidly developing at that time and thus, apparently, more susceptible to carcinogenesis.	Corrected, lines 367-383.