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Journal Name:	**Asian Food Science Journal**
Manuscript Number:	**Ms_AFSJ_48607**
Title of the Manuscript:	**COMPARATIVE STUDIES ON ANTI-INFLAMMATORY, ANTIOXIDANT and ANTIMUTAGENIC ACTIVITIES of Crassocephalum crepidioides (Bent) LEAF COLD AND HOT WATER EXTRACTS**
Type of the Article	**Original Research Article**

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	**Comments on COMPARATIVE STUDIES ON ANTI-INFLAMMATORY, ANTIOXIDANT and ANTIMUTAGENIC ACTIVITIES of *Crassocephalum crepidioides* (Bent) LEAF COLD AND HOT WATER EXTRACTS** General comments Author(s) of the current manuscript try to show the anti-inflamatory, antioxidant and antimutagenic activities from two kinds of extracts obtained from *Crassocephalum crepidioides*. Although the methods are in concordance with the objective of the study, the extraction methods reported are not described correctly in order to be reproducible and several details should be clarify. Besides, even that selected biomarkers for antioxidant response are adequate, its presentation and interpretation is not clear. Due that inflammatory process is complex, the use of one biomarker (Membrane Stabilizing Potential) is not enough to affirm or deny the anti-inflammatory properties of the extracts. This method should be complemented with an in vivo model. Why onion was selected as a model for genotoxicity? At least another mutagenicity test should be done to properly assess the mutagenicity of the extracts. There is a lack of chemical characterization of the extracts, total polyphenols and flavonoids are not enough. The graphs are not easy to read, and several questions arise from its observation. Although, half maximal inhibitory concentration (IC50) is an important variable in toxicology studies, for these results maybe is more easy and practical to represents as percentage of positive or negative control. Even bar graphs could be more suitable. The results sections is excessive in terms of size, please be more concise and clear. The discussion section not allow to compare the results of the study with other published with plant extracts. Are these extracts more, equal or less beneficial than other obtained from other plants? What chemical species in the plant extracts exert the biological effects observed in the investigation? What mechanisms are involved in these biological processes? Particular comments Introduction: Line 46-47: This sentence is kind of excessive just clarify that "Excessive activation of phagocytes and reactive oxygen species (ROS) are…" Line 54-55: "Herbal compounds" Line 56: For first time in the manuscript you should mentioned the complete scientific name of the plant under study "*Crassocephalum crepidioides*" and then, through the entire manuscript as "*C. crepidioides*". I also recommend including the common names of this plant between parentheses due that some plants are called with different names in different places of the world. Line 58: Erase ")" Line 58 and 59: Maybe for the objective of the investigation is irrelevant to mention the different ways in which the leaves are prepared for be eaten in different localities such as Sierra Leona or Australia. However, is more important remark that the leaves could be eaten cooked or raw in different parts of the world and this is the justification for the use of cold and hot water extracts in this research. Materials and method: Line 69: Although is mentioned that *C. credipioides* were collected from Ile-Ife, it is not clear if these vegetables were bought from a local marker or supermarket, or if were wild or obtained from a crop. This is relevant because the contamination is not the same depending of the source, for example, is more expected that the concentration of pesticides were greater in vegetables from a crop in comparison with the obtained in wild.	

	Line 74-80: What were the conditions of the blending process such as the model or label of the blender or the time? Provide enough information for the reproducibility of data. Other concern with this section is that “the homogenates were filtered with a double layered cheese cloth”, how to reproduce this by others? Line 85: Clarify all the tested concentration of the extracts and not only its interval. Line 88-89: Express this formula in adequate way, not as a text. If not possible, just express “the % membrane stability was calculated according to (8)”. This also applies for lines 112, 138 and 154. Line 96: Which was the interval of concentration (or the concentrations) of quercetin for the standard curve? Line 120: Which was the interval of concentration (or the concentrations) of ascorbic acid for the standard curve? Line 130-131: Clarify all the tested concentration of the extracts and not only its interval. Line 141: Twenty five healthy onion (*Allium cepa*) bulbs… why do you use onions as model of genotoxicity and growth Inhibition? Results: Line 160: The reason why diclofenac was used as control should be addressed in material and methods section. The concentrations of diclofenac should be included. Line 161: I cannot see the dose-dependent effect in the figure 1.0. In fact, the response showed great variability between cold and hot water extract as well as by diclofenac. I do not understand why the concentrations of diclofenac (0.5, 1, 1.5 and 2 mg/ml) appear at the same level of the concentrations of extracts (0-300 mg/ml) in the graphs. Authors must make this clear. Line 178: Add “mean ± SEM” before closing the parentheses. Line 193: Erase 0.00, just put 0. Sections 3.2–3.6 could be just one and named as Biochemical Assays. The numeration of figures is not progressive; there are two figures 1 and two figures 2. Since you report in the table 2 and 3 the effects of cold and hot water extract on mitotic index of *A. cepa* the micrographs are not necessary. Arrows and letters in micrographs should be grouped and well edited. What does it means “juice” in the title of figure 2 “Figure 2: The effects of hot water juice extract on the *A. cepa* chromosomes.”? Authors must clarify that the extract was obtained from *C. crepidioides*. Line 247: Use HWE to hot water extract and CWE for cold water extract. In fact, you can use these initials in the entire manuscript. Line 249-251: Any possible mechanism involved in this? Any antecedent similar with extracts of other plants? References are necessary. Line 252-256: This information is not valuable for discussion section. Just discuss the biological meaning of the findings. Line 259-260: Which kind of phytochemical species exhibits free radicals scavenging properties? References are necessary. Line 263-266: How do you explain these results? Why the water temperature extracts is a factor in the reductive potential of the extracts. Line 278-281: Information of the principle of TBARS technique is not relevant for discussion section; the important point is to discuss the biological meaning of the findings. Line 285: Change “no anti-lipid peroxidation activity” to “induce lipid peroxidation” Line 290-291: Which kind of compounds possesses antioxidant capacity in the extracts? Enlist some of them and refer to other studies. Line 312-325: Compare the obtained results with other in which the extracts of plants are tested for genotoxicity.	

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Minor REVISION comments		
Optional/General comments		

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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