



## SDI Review Form 1.6

### **PART 1:**

Journal Name:	<a href="#">British Journal of Pharmaceutical Research</a>
Manuscript Number:	<b>MS: 2012/BJPR/1994</b>
Title of the Manuscript:	<b>Immunomodulatory effects of aqueous extracts of <i>Auricularia</i> sp and <i>Pleurotus</i> sp mushrooms in cyclophosphamide-immunosuppressed Wistar rats</b>

**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**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part and write here 'Corrected'/ if not agreed, give suitable justifications)
<b>COMPULSORY REVISION</b> comments	<p>The manuscript MS: 2012/BJPR/1994 “ Immunomodulatory effects of aqueous extracts of <i>Auricularia</i> sp and <i>Pleurotus</i> sp mushrooms in cyclophosphamide-immunosuppressed Wistar rats” by Kyakulaga A.H. et al. reports the results of one experiment of treatment with acqueous extracts from mushrooms administered to rats immune suppressed by cyclophosphamide (CPA). The CPA was used at a dosage comparable to human maintenance dosages in cancer therapy (10 mg/kg) and following a model previously published by Vigila G.A. (in the manuscript's References). The extract, obtained after boiling and filtering powder obtained by dry <i>Auricularia</i> sp and <i>Pleurotus</i> sp mushrooms from Uganda, resulted to reduce the immune suppressive effect of CPA with effect on the number of circulating total white blood cells (WBC), lymphocytes and neutrophils. <i>Auricularia</i> sp appeared to furnish the most active extract.</p> <ul style="list-style-type: none"> <li>• <b>Introduction</b> – It is short but clearly</li> </ul>	



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	<p>structured, with essential information on the argument. Some more information about the medical properties of the two mushrooms should be integrated either here or, later in the discussion (in this case better focused on the already known immunomodulatory properties). About active components see also: Kiho T, Sakushima M, Wang SR, Nagai K, Ukai S. Polysaccharides in fungi. XXVI. Two branched (1---3)-beta-D-glucans from hot water extract of Yu ěr. Chem Pharm Bull (Tokyo). 1991 Mar;39(3):798-800; about Basidiomycetes: Wasser SP. Current findings, future trends, and unsolved problems in studies of medicinal mushrooms. Appl Microbiol Biotechnol. 2011 Mar;89(5):1323-32</p> <p>Looking to the literature this study appears to be new for the application of these mushrooms in immune suppression rescue, and this should be indicated in the abstract and introduction.</p> <p>Since the limitation of the study (1 experiment), even though documenting a positive effect of the mushroom extracts on the WBC number, it should be indicated in abstract, introduction, and conclusion of the discussion that this are preliminary data to be more completely documented by further experiments, possibly investigating also some aspect of immune cell</p>	
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	<p>functions (e.g. cytotoxicity or cytokine production).</p> <ul style="list-style-type: none"><li>• <b>Materials &amp; methods:</b> methodology as described is clear, and the design of the study nicely done.</li><li>• <b>Results &amp; discussion:</b><ol style="list-style-type: none"><li>1. Data appear controlled and convincing as reported in the Tables. However is recommended a future repetition to more strongly confirm the results.</li><li>2. The references should need some integration with papers especially sustaining the immunological properties of Basidiomycetes in general and some more specific reference on the utilized mushrooms.</li><li>3. Discussion and conclusions present some repetition of data or comments already underlined in Results. More solid discussion should be constructed underling that all extracts independently from the dosage gave positive effects, and in particular the best activity was demonstrated by the <i>Auricularia</i> sp, especially with a dose dependent effect. A discussion about the value of crude extracts from fruiting body and their components described in literature that could be involved in innate immunity stimulation should implement the general level of the discussion.</li></ol></li></ul>	
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	<p>4. Statistical analysis: the significance indicated simply by <math>p &gt; 0.05</math> doesn't give evidence to the really clear significance of some reported data and it should be better to indicate when value is 0.01 or more significant.</p> <ul style="list-style-type: none"><li>• Conclusions are consequent to the reported results; however here the Authors should stress the originality of the study that for a definitive conclusion will need further confirmation by repetition of the experiment. Therefore the data presented in this first study have to be indicated as "preliminary".</li></ul> <p>The manuscript presents also some editing and writing errors that need to be fixed by a general and accurate review (e.g. the sentence at lines 123-124, or the interrupted sentence at line 168; at line 28, instead of "agony of the patients" it should be more proper "complications worsening the conditions of the patients").</p> <p>In general, the study here presented appears to be new for the investigated application of these mushroom extracts, offering interesting data that are stimulating for further investigations by the researchers in the field. Even though data are limited to one experiment, the number of animals can be considered acceptable for a preliminary conclusion.</p>	
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	For publication the paper has in any case to be reviewed and implemented by better structured and deeper discussion with integration of some new references.	
<b><u>Minor</u></b> REVISION comments		
<b><u>Optional/General</u></b> comments		

**Reviewer Details:**

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