



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">British Biotechnology Journal</a>                                                                                                 |
| Manuscript Number:       | <b>Ms_BBJ_28425</b>                                                                                                                           |
| Title of the Manuscript: | <b>Analysis of gene expression associated with copper toxicity in white birch (<i>Betula papyrifera</i>) populations from a mining region</b> |
| Type of the Article      | <b>Original Research Article</b>                                                                                                              |

**General guideline for Peer Review process:**

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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

|                                     | <b>Reviewer's comment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Author's comment</b> (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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <p>1) Introduction lacks of more information about the species studied (<i>Betula papyrifera</i>);</p> <p>2) Which means "controlled conditions" on page 3 line 62?</p> <p>3) Is there a reference for the 1-9 scale (lines 70-71)?</p> <p>4) I do not see reasons to compare root results with those on leaves. In my opinion, the two organs should be studied separately, since they have different functions, structures, particularities etc. (lines 107-108, Figures 3 and 4);</p>                                                                                                                                                                                                                                                                                                                                                                                       | <p>1) A section on <i>Betula papyrifera</i> has been added to the introduction section.</p> <p>2). "controlled conditions" has been deleted from that sentence.</p> <p>3) We have added a reference for the 1-9 scale.</p> <p>4) The reason is that gene expressions vary from organ to organ. And it is important to compare if the expression of the targeted genes is the same in the two organs. This is also to be consistent with other studies in different species.</p>                                                                                                                                                                                                                                                        |
| <b>Minor</b> REVISION comments      | <p>1) do not use "significant" before "differences", "statistically" before "similar", "significant" before "upregulation". Since your results are based on a statistical analysis, such words are redundant in the text;</p> <p>2) Write GSR in full after its first mention in the text;</p> <p>3) There are some commas in excess on line 68;</p> <p>4) Abbreviate "second" only as "s", not "sec" (lines 94-98, check all the manuscript);</p> <p>5) Self-explanatory tables are recommended. In Table 2, where nickel, copper, and nickel +copper are shown?</p> <p>6) On Figure 2, where is the information "*indicates significant difference between root and leaf expression levels for each site";</p> <p>7) As to the paragraph between lines 124-129, how such an information correlates with your findings?</p> <p>8) Lines 176-178: include EC numbers after</p> | <p>1. The data were compared using specific statistical analyses. The term "significant" is relevant to indicate that the differences are real and not by chance. Etc...</p> <p>2. GSR has been written in full</p> <p>3. Correction done</p> <p>4. Done</p> <p>5. Good point. This table reports only copper data. We have deleted nickel and nickel + copper in the footnote.</p> <p>6. Good point. We have replace the sentence in the footnote with * by: Means followed by different letters are significantly different (<math>P &lt; 0.05</math>; <math>n = 15</math>).</p> <p>7. We have added a sentence showing how this information is linked to our study.</p> <p>8. Good observation. We have added Fig 1 in the text</p> |



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|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--|
|                                            | names of enzymes;<br>9) Is Figure 1 mentioned in the text?                                                              |  |
| <b><u>Optional/General</u></b><br>comments | The manuscript has great relevance in the subject field, but there are structural problems detected as above mentioned. |  |