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|  |  |
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| **DO**  –Use clear and grammatically correct English.  –Save as US Letter size format.  –Ensure line numbering is enabled.  –Align text LEFT.  –Ensure title, abstract, and author information matches what is entered online during submission. | **DO NOT**  –Embed ANY figures or tables in the text. Instead, upload a separate file for each on the file uploads page when submitting. Example – If you have 3 figures, then you will upload 3 figure files & be asked to add a figure title for each. See <https://peerj.com/about/author-instructions/#figures> for figure formats. |

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**Abstract**

Add your abstract here.

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* No more than approx. 500 words (or 3,000 characters).
* Self-contained and concisely describe the reason for the work, methodology, results, and conclusions. Uncommon abbreviations should be spelled out at first use. Do not include footnotes or references.
* Headings in structured abstracts should be bold and followed by a period. Each heading should begin a new paragraph. For example:

**Background.** The background section text goes here. Next line for new section.

**Methods.** Methods section here, then new line.

**Results.** Results section here, then new line.

**Discussion.** Discussion section here.

**Introduction**

Add your introduction here.

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**Materials & Methods**

Add your materials and methods here.

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* Review the [raw data and materials sharing policies](https://peerj.com/about/policies-and-procedures/#data-materials-sharing).
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Add your results here.

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All statistical results should be fully reported, including the test that was performed, the corresponding test statistic, degrees of freedom, the exact p-value (not, e.g. "p<0.05"), and effect sizes. For uploaded statistical figures, where appropriate, we recommend that you overlay bar graphs with scatter plots showing individual data points, or use another method to show the distribution of the data, such as boxplots, violin plots, etc.

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If you have primary cropped gel pictures then you MUST also upload the full-length **uncropped** pictures as a supplemental file (compressed as a single ZIP file if more than one). If the ZIP file is >30MB then upload to FigShare and provide the link to staff in the declarations section during submission.

**Discussion**Add your discussion here.

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* Start with the most important findings first.
* Link your results to any previous studies and how they add value and/or why results differ from what was previously demonstrated.
* What are the strengths and weaknesses/limitations and/or unexpected outcomes of the study results? Any inconclusive results?

**Conclusions**

Add your conclusions here.

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* Concisely restate the hypothesis and most important findings.
* Summarize the major findings, contributions to existing knowledge, and limitations.
* What are the future directions?
* Speculation is welcome, but should be identified as such.
* Conclusions MUST be well stated, linked to original research question & limited to supporting results.

**Acknowledgements**

Add your acknowledgements here.

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* Should not be used to acknowledge funders – funding will be entered online in the declarations page as a separate Funding Statement and appear on the published paper.
* As a matter of courtesy, we suggest you inform anyone whom you acknowledge.

**References**

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