Does the Introduction:
- Give an accurate summary of recent research on the topic?
- Highlight gaps or conflicts in current understanding?
- Acknowledge similar published work, if there is any?
- Demonstrate the need for investigation in the topic area?
- End with the research aims and how they will be pursued? (If the aims are a surprise, then the introduction needs improvement.)

Do the Methods (and experiments described therein):
- Include appropriate controls?
- Repeat analyses?
- Repeat experiments and sampling?
- Include appropriate statistical analyses?
- Provide enough detail for others to replicate?

Consider the Results:
- Do experiments seek to answer the research question?
- Do the data in the figures support interpretations authors make in the text?
- Could there be other interpretations of the results that were not considered?
- Are figures labeled fully and correctly? Are any tangential?
- Are there sufficient data? Enough time points? Controls presented?
- Has there been obvious manipulation of the data?
- Here is the place to suggest additional experiments, if warranted.

Does the Discussion:
- Repeat the results section?
- Gather all information together into a whole or a new model?
- Place conclusions in the context of the field?
- Address any inconsistencies in the story?
- Acknowledge similar published work, if there is any?
- Make the significance clear, and indicate how it leads to wider understanding?
- Over-interpret? (Some speculation is fine.)

Are the References:
- Accurate?
- Adequate? (Do they fully support the point made in the text?)
- Balanced? (Do they cite a range of labs or only one? Do they rely too much on self-citation? Are they old or new, reviews or primary literature?)
- Readily retrievable?