corrector

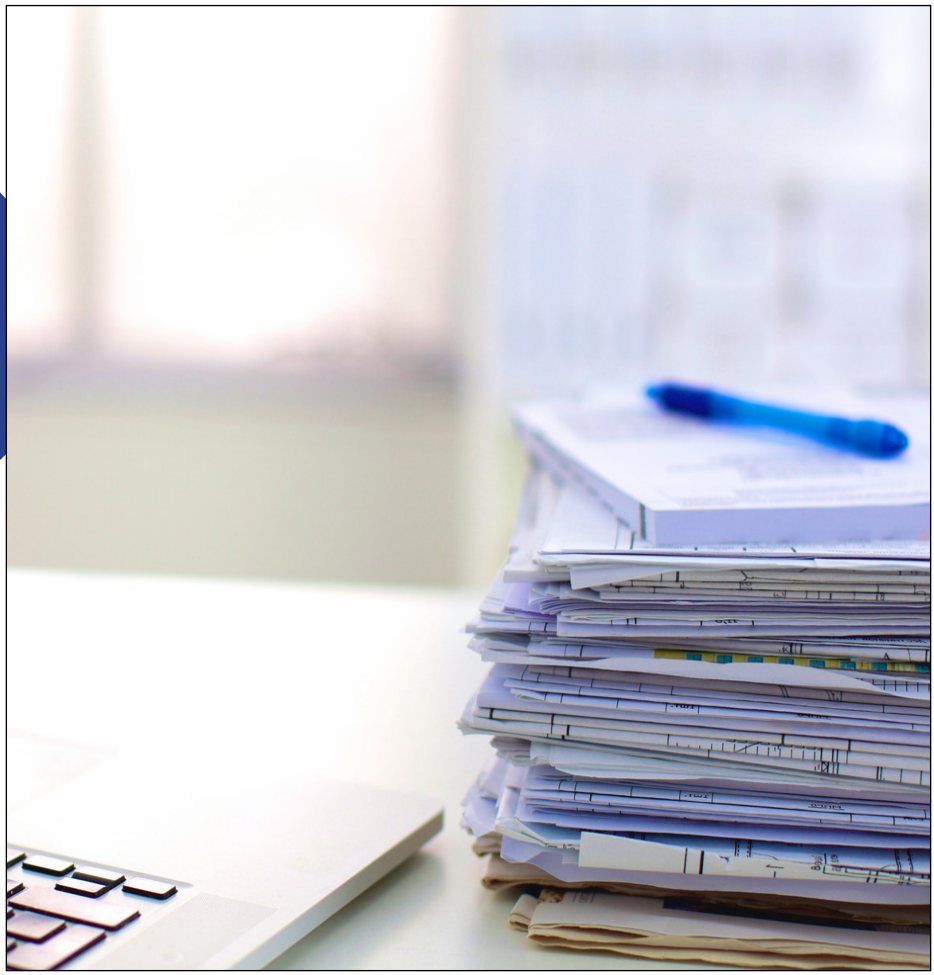
ADVICE

ON WRITING BETTER SCIENTIFIC ARTICLES

TITLE

Key Advice: A good title should convey a clear result or specific message rather than a vague questions or purpose of the study. For example “Drug X dose-dependently increases heart rate and blood pressure” is a much more informative title than “The effect of Drug X on heart rate and blood pressure”.

1. The title should be a clear statement about your findings or work and should not contain abbreviations.



ABSTRACT

Key Advice: The quality of the Abstract will often determine whether a reviewer accepts or declines an invitation to review your paper (or even if it is sent out for review by the Area Editor). Therefore, make absolutely sure you have drafted and proofed it several times until you are completely satisfied with the text.

1. The Abstract should summarize the major aspects of your paper in a concise way. Since Abstracts are short (typically 200-250 words) stick to your main results rather than trying to cram in as much detail as possible.

2. Make sure the Abstract properly reflects your key findings as well as the implications of your results. A reader should be able to understand the message of the paper from reading the Abstract alone.

3. Although probably obvious, an Abstract should never contain data that are not presented in the main text.

4. You should always have an idea of how you expect to word the Abstract when preparing the main text of your paper. In general, it is easier to write your Abstract once you have a good working draft of your paper as the key points of the paper will have been identified.

INTRODUCTION

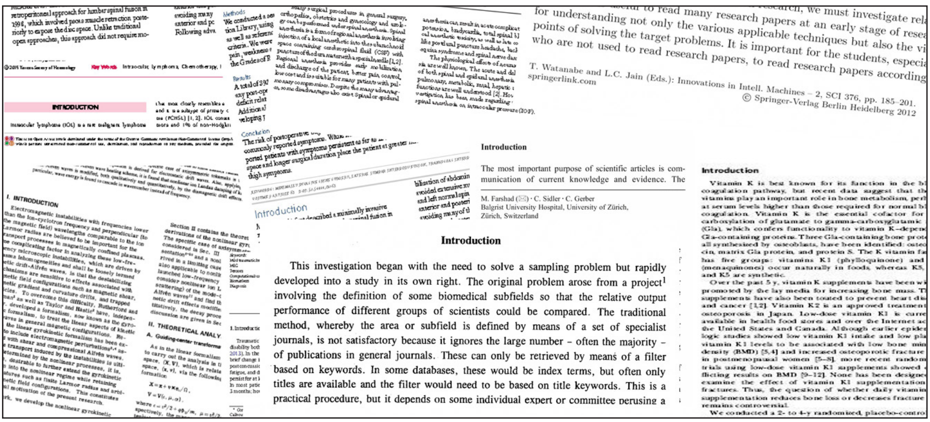
Key Advice: Ensure that you clearly express your hypothesis or what it is you want to examine.

1. Introductions do not need to be long and should not an extended review of literature. Most readers will be familiar with the background and the job of a good introduction is to emphasize the relevant findings of previous publications to introduce your purpose of your work. Good examples of motives for carrying out your work may be extension of previous work, a gap in understanding a particular phenomenon and resolving a contradiction.

2. Make sure you justify the significance of the study and why the research was carried out.

3. It is generally best to write the Introduction once you have written the Discussion as you will be able to 'introduce' the main aspects of your study.

4. A general structure is as follows:
First paragraph: General background.
Second/third paragraphs: Specific points relevant to your particular study.
Fourth paragraph: The specific hypothesis you want to test.



METHODS

Key Advice: If you have a complicated experimental paradigm or numerous groups then graphically describe your methods/structure of experiments in the form of a table or flow-chart.

1. This is normally the most straightforward part of a paper and should not take too long to complete. There are normally set protocols for methods which can be found in published papers. This can be used as a basis for writing your own Methods section and revised to reflect your own experimental protocol.

2. Ensure that N values are clearly stated for all experimental groups and that they all add up to the correct N number at the end. Numerous submissions have formal errors of this type and it is easy to fix.

FIGURES

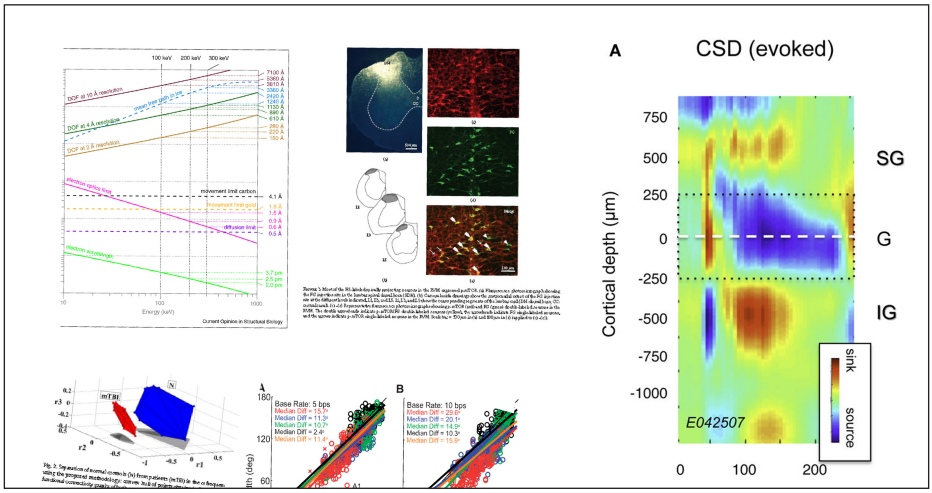
Key advice: Quality over quantity. It is better to have more comprehensive figures than a lot of small/one graph figures. Ideally, each figure should be a stand-alone result which has a particular message. When a reader has read through all the figures they should understand the complete message of your work.

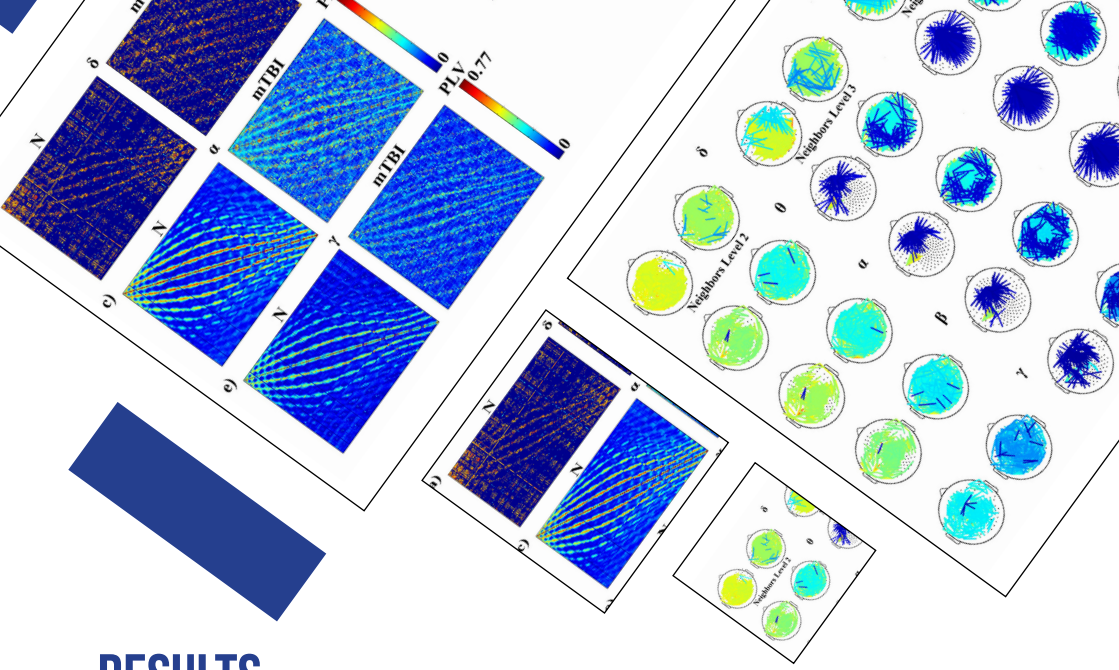
1. Ensure you have results that are complete and sufficiently developed to warrant publication in the first place. One of the best ways to do this is to try and prepare a draft of the figures (or most of them) to see where any potential gaps are.

2. Preparing figures is often the most time consuming part of 'writing' a paper as it ultimately involves doing the stats to test for significance. Make sure you use appropriate statistics and tests for normality. Statistical differences are the core of most papers and reviewers are always asked to remark on if the correct statistics have been used.

3. Make sure your figures are internally consistent in terms of layout and for any subsections within each figure (ie A, B,C - a,b,c – i,ii,iii). Check the guidelines of examples of published articles in your target journal.

Once you have a reasonable draft of your figures (including stats) start writing the text for the Results section.





RESULTS

Key advice: Break down your Results section into smaller 'bite-size' subsections. This helps create a logical flow for your results which should deepen as you move through the sections. It is generally better for subsections (and title of figure captions) to be a statement i.e. "d-tubocurarine induces spike and wave seizures" rather than something vague such as "The effect of d-tubocurarine".

1. Organize the Results in a logical order, which may not necessarily be the chronological order in which the study was carried out.

2. Avoid interpreting your findings. Results should be described objectively and interpretation and opinion left for the Discussion.

3. Many journals impose strict word limits for the main text, but not for Figure legends. Therefore, if you need to keep your Results section concise you can include additional results-related texts in the figure captions.

4. When writing the Results section it may be apparent that you have overlooked something which may add value to your paper. If this is something that should not seriously impact your findings, but you are concerned a reviewer may criticize the lack of these data, then run a few pilot studies and providing they are consistent with your general hypothesis include the data in the Results section.

DISCUSSION

Key Advice: A reader should be able to read your Discussion without having read the rest of the paper and still understand the main purpose, findings and importance of your work.

1. Make the first paragraph a general summary of your work with a closing sentence about the potential implication.

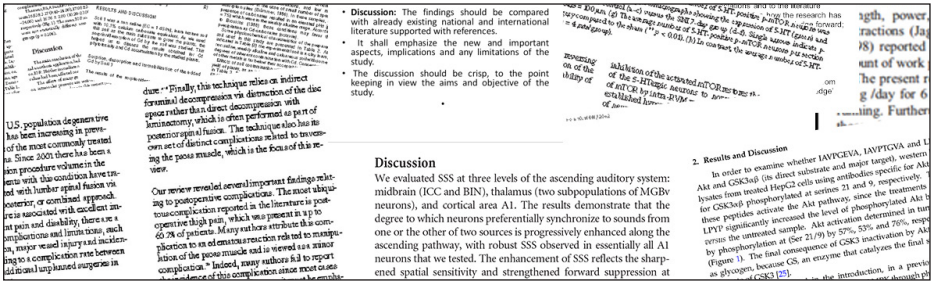
2. Discuss your work appropriately in terms of other published work, are your results consistent with other work, do they differ? If so, perhaps methodological/analytical differences may account for this.

3. Your work will not be perfect. Whilst you do not want to draw attention to the short comings of your own study it is important to be slightly self-critical of your work. What are the limitations? What should be interpreted cautiously?

4. Get rid of the waffle. Try to write in a concise manner and do not repeat yourself, unless it is in a summary paragraph. Repetition of the same argument, if not for the purposes of development, is a sign the Discussion has not been constructed properly.

5. Don't go off on a tangent. For example, you may have just written a wonderful paragraph but in the context of the paper you later realize it is not as relevant as initially thought. Although painful, after all that hard work, it is better to get remove unnecessary text and save it for a different publication, grant application or review.

6. Make sure you use paragraphs and subsections appropriately. Do not have one long paragraph (20 lines or more) or lots of short paragraphs (5 lines or less) as this makes reading difficult. Arrange the text in a logical manner so that it essentially tells a story of the main points of your work.



- **Discussion:** The findings should be compared with already existing national and international literature supported with references.
- It shall emphasize the new and important aspects, implications and any limitations of the study.
- The discussion should be crisp, to the point keeping in view the aims and objective of the study.

Discussion

We evaluated SSS at three levels of the ascending auditory system: midbrain (ICC and BIN), thalamus (two subpopulations of MGBv neurons), and cortical area A1. The results demonstrate that the degree to which neurons preferentially synchronize to sounds from one or the other of two sources is progressively enhanced along the ascending pathway, with robust SSS observed in essentially all A1 neurons that we tested. The enhancement of SSS reflects the sharpened spatial sensitivity and strengthened forward suppression at

2. Results and Discussion

FORMAL FORMATTING

1. Always carefully adhere to the guidelines laid out in the Authors sections of the journal website. This includes keeping to word limits, layout of texts, fonts, mode of citation and reference lists.

2. Since figures go through multiple drafts it is essential to check that the figure numbers provided in the Results section correspond to the correct part of each figure.

3. Run a spell and grammar check. Read a printed version of your paper before submitting it to the journal to reduce the number of formal mistakes.

4. Ensure you have a professional cover letter which should be submitted alongside your manuscript.

5. If you are concerned about the quality of your language ask a colleague to proof the language for you or send it to a reputable scientific proofing service.

RECOMMENDED ORDER FOR PREPARING YOUR ARTICLE

1. Figures - Start with the figures to make sure you have results that warrant publication and ensure you have done the appropriate stats.

2. Results –Write text to build around the figures.

3. Methods – Write the Methods as much of this section relates to the Results.

4. Discussion – Prepare a reasonable Discussion with all the main points and key findings sufficiently elaborated.

5. Introduction – Having found the key points you wish to focus the paper on prepare your Introduction to focus the reader on the purpose of your study.

6. Abstract – This should be a concise summary of all the sections and is best written once you have completed your main text.

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