TIPS FOR REVIEWING A PAPER SUBMITTED TO AAPS PharmSciTech

One of the critical elements in our careers as pharmaceutical scientists is to peer review articles during the submission and publication process. We have all been asked to do this, often many times over short periods of time. It is helpful to learn the mechanics of reviewing papers in order to make the review process more efficient. This will complement your knowledge of the subject matter of the article. As peer reviewers, our role is to identify flaws and inconsistencies regarding the approach taken by the authors in addressing their research question and their knowledge of the related literature. Although our role as reviewers is not to correct extensive grammar and style problems, we can alert the editor to problems that confuse the reader.

Reviewers for AAPS PharmSciTech are anonymous. The editor-in-chief, after a careful triage of each submitted article, will send the submitted article typically to four reviewers or content experts. The editor checks each article submitted to AAPS PharmSciTech for plagiarism before sending to reviewers. Although each author can suggest to the editor the names of several reviewers particularly knowledgeable about their work and the research field, these suggested scientists should not have any conflict or appearance of a conflict that would render their review biased.

PARTS OF A GOOD PEER REVIEW SHOULD INCLUDE:

1. List the title of the paper and its authors.
2. Provide a short, concise summary of the paper (a few sentences) to inform the editor of your knowledge and understanding of the article’s topic.
3. Summarize the positive contributions of the article. This is particularly helpful to the authors if the review is generally critical and unfavorable to publication of the article.
4. Provide your major comments about each part of the article. This includes the significance of the article’s overall contribution to the field; the author’s approach to study their research question; the appropriateness of the methods used in the study; the results; the arguments in the discussion section and how well the basis of the arguments are supported by literature citations; and how well the authors answered their hypothesis in the conclusion.
5. Provide your minor comments about the paper, which should include comments on the writing style, figures and tables, grammar, and particularly if these confuse the reader.
6. Provide your recommendation to the editor. Remember, AAPS PharmSciTech receives substantially more papers than are published, so only the very best papers are published.

TIPS FOR REVIEWING EACH PART OF THE ARTICLE INCLUDE:

1. Abstract: Provides a summary of the paper. It must state the research question being addressed and the conclusion. It should include key data and numerical information from the results. Abstracts rich in numerical data are the most helpful to readers. The
significance of the paper’s results must be stated. The past tense should be used (no mixed tenses).

2. **Introduction:** Informs the reader about the topic of the article (e.g., states the hypothesis and the research question being addressed). It should state the significance of the work. It provides a background of the research question by citing up to 5 or 6 studies from the literature. The literature review should go back in time. The cited studies should be chosen based on importance of the work (e.g., number of cites; impact factor of the journal; etc.). This section must answer the question of “Why does the reader care about the study.”

3. **Materials and Methods:** Provides adequate detail about the materials and techniques used such that a reader could replicate your experiments in order to assess the article’s results and conclusion. All new methods must be described in detail. If the authors are following another reported method, then those methods can be described briefly and cited.

4. **Results:** The Results and Discussion sections should not be combined. This section is written in past tense. The results are described in text and supplemented with figures and tables. All data should be analyzed. Only the relevant and representative data should be described.

5. **Discussion:** Provides the primary findings of the article, followed by the evidence to support the author’s arguments. The results must be compared and contrasted to what is in the literature. The significance of the results must be described along with the practical implications to the field. The author must state if the results of the study support their hypothesis. The phrases, such as “may have,” “might have,” and “perhaps” must be avoided. The discussion section should be about 5 to 6 pages in length. If it is shorter than about 3 pages in length, then the authors have most likely under-interpreted their results.

6. **Conclusion:** Provides a strong concluding sentence about the study that answers the hypothesis. The authors should present no new material in this section.

7. **Citations:** The authors should provide typically 40 to 50 important citations. Reviewers are encouraged to help the authors identify any additional relevant citations for inclusion in the article.

**Tips for Declining to Review an Article Include:**

1. Immediately respond to the editor’s invitation to review. It is OK to say “no” if you:
   a. Cannot review the article within 2-3 weeks of receipt of the invitation.
   b. You are not a content expert on the topic of the article.

2. If you decline to review an article, then please suggest alternative content experts to the editor.