Task #4—Writing Your Abstract

Writing an abstract

Write a 200-250 word abstract describing your project. You have written at least one abstract for the qualification phase to use as examples for this task. For additional examples, visit the SMART Team website for previous SMART Team abstracts to see examples of abstracts. http://cbm.msoe.edu/stupro/smart/previous/index.html

The previous tasks were designed to help you start writing the abstract. Use this information to help you as you develop your first draft of your abstract. An abstract is a short document that summarizes the key points in a research project. This document advertizes your project to others and showcases your project. Therefore, your abstract should highlight your project in the best possible light. We will use your abstract in many different forums: on the SMART Team website, in the model description sheet, in the program booklet for the final presentations and on your poster. Therefore, this one short description will have several opportunities to describe your SMART Team project. Make it descriptive and engaging.

Please note that your abstract should be written with your mentor’s input and feedback. Make sure to include your mentor on the writing process!

**How do you write a descriptive and engaging abstract?**

Your abstract should have the following information:

**Title.** The title should have the name of the molecule and may have a brief description of the function or significance of the molecule. You can have fun with the title, if you wish to do so, but the title should also have a concrete scientific premise.

**Authors.** The authors are the students who are performing the research and model design. The teacher and mentor will be listed separately. Names should be listed alphabetically.

**Teacher(s).** List the teacher’s name(s).

**School.** Name of school

**Mentor(s).** List the name of your mentor, title and research institution

**Abstract.**
• Start your abstract with an introductory sentence that presents a general statement of the “big picture” story and grabs the attention of your audience. Make the reader want to continue to read about your project.
  o Why should we care about your project? The protein that you are working on is very interesting to you and your mentor, but you need to make the general audience (your parents, your siblings, other students) interested as well. What does this protein have to do with everyday life? Why study it? What impact does this protein have on the global world?
• Introduce the specific molecule and give supporting information on the molecule function in the cell.
  o What does this protein do within the cell? What is its job?
  o Where can you find the protein within the cell?
  o Does it interact with other molecules?
• Describe what happens if the protein is missing or defective (is it lethal? Does a disease or disorder result?)
• Somewhere in the abstract (at the beginning or the end) there is usually a phrase/sentence talking about the importance of the work, or how this work will affect science
• Summary or conclusion – bring your reader back to the “big picture”. At the end of your abstract, there should be a connection between your big picture with which you started the abstract and the specifics of the protein that you are modeling.
• Somewhere in the abstract, please include a statement describing this project as a SMART Team modeling project using 3D printing technology. This will help to differentiate the abstract as a modeling abstract, rather than a research abstract. For those of you who plan to attend the ASBMB meeting in the spring, we will need to do this anyway, so this will help you in that abstract submission as well.
• Writing in science is concise, specific and reflective. The abstract should be written in passive voice and third person.

And remember to do this all in 200-250 words! Don’t worry about the limit on words for your first draft. Write it all down. Then go back and edit it to remove words, combine sentences or delete extra information in order to pare it down to 200-250 words.

Things to Avoid while writing your abstract:
• Avoid technical words that most readers won’t understand
  o If you must use the terms, make sure that you explain or define them.
• Avoid using abbreviations or acronyms that are not commonly understood unless you define them.
• Avoid using phrases that do not contribute to the understanding of your project. For example: “The fact that...”; “In order to...” Don’t use more words than you need to make your point.
• Avoid using the word “it” – this is such a general pronoun and you have such a short amount of space that “it” becomes confusing for the reader.
• Avoid copying sentences directly from primary citations or other resources into your abstract. This is plagiarism. Your abstract is your own work and therefore should be your own words.
To help you avoid the temptation of copying words from an article, read through the materials provided, but when you are writing the abstract, put the articles aside and write the abstract without these references in front of you. This will allow you to write from memory and allows you to avoid the temptation to use another author’s phrasing.

**Keeping to the Word Limit**

Your abstract should be 200-250 words. This can actually be more challenging than writing 1000 words. How do you meet this word limit? When writing your first draft, don’t worry about the word count. After completing the abstract, read back through it and cross out phrases and sentences that are not important. Combine sentences to shorten the length of the abstract. It is better to use fewer words to get your point across. But, remember that you still need to get your reader to understand what it is that you are trying to convey.

**Revisions**

The more that you read through your abstract, the more concise it will be. The more people who read through the abstract and offer feedback, the better your abstract will become. Your abstract will undergo several rounds of revisions, and this is quite normal.

During the Presentation Phase, you will be designing your poster and oral presentations. During this time frame, undoubtedly, you will develop a deeper understanding of your story, so you will have the opportunity to edit your abstract during the presentation phase. There will be a task during the presentation phase asking for a final abstract for the abstract booklet (used during the oral presentations). You may find that you wish to revise your abstract further during the presentation phase as you learn more about your molecular story.

**ASBMB Abstracts**

For teams intending to participate in the ASBMB Conference, there are additional parameters that need to be followed.

- The body of the abstract is limited to 1220 characters not including spaces.
- The title, institution and author list may not exceed 400 characters not including spaces.
- The SMART Team statement must be included with the acronym defined. Example: The Fennimore SMART Team (Students Modeling A Research Topic).
- There needs to be a funding statement at the end of the abstract. Example: Program supported by a grant from NIH-CTSA.

Send Shannon an email with your abstract.

**Contact Information:**
Shannon Colton colton@msoe.edu