RESEARCH EXPERIENCES FOR UNDERGRADUATES

NSF REU: PR-CLIMB

Research Report Guidelines

Format: Your final report will be written in the fashion of a full article following the format for a publication from the ACS journal *Journal of the American Chemical Society* (JACS). An example will be provided.

Title
Create a persuasive title.

Authors
Include your name and the names of your mentors and collaborators.

Abstract
This section provides you the opportunity to describe the main hypothesis of your work and highlight your key accomplishments. It should be 150 to 250 words in length.

Graphical Abstract
The graphic should be simple, but informative conveying the "big picture" story of the report.. It must be entirely original (not appear within the text of the manuscript) and not include any published artwork. It should be no larger than 3.25 inches by 1.75 inches. Any text in the figure should be Arial, 7 pt.

Introduction
In this section you provide the literature background to place your work into a broader context. To achieve this, you must describe the importance of the problem and questions that you are specifically addressing and present your original hypothesis. You should then describe the approach you have taken to evaluate your hypothesis. At the end of this section you should briefly define what new information is to be developed by your work and will be discussed throughout the manuscript.

Results/Discussion
Treat this section as if you are telling the story of your work by integrating your datasets (either figure or tables) into a coherent discussion. Describe how you analyzed your data and what interpretations you have made.

Conclusion
This section allows you to summarize the key accomplishments of your research by discussing the broader impact of the work in the scientific community and/or potential applications such as in industry or other relevant settings.

Experimental Section
In this section describe all of the experiments that were performed in detail and include the sources for major chemicals and the instrumentation or software used to collect and analyze data.

Acknowledgments
It is important to acknowledge all people/laboratories that assisted you in the development of your work. Also make sure to include the grant number NSF REU 2050493 and any other funding sources that pertain to your lab or pertain to instrumentation that you have used and that was acquired with external funds.

References
Use the in-text referencing format applied by JACS but we request a modification of the JACS citation format. See the following for this modification.

-Last name, Initials. *Title of the article*. Journal name in abbreviation. Year published, volume, page range.

Example: Song, H.; Nor, Y.A.; Yu, M.; Yang, Y.; Zhang, J.; Zhang, H.; Xu, C.; Mitter, N.; Yu, C. *Silica nanopollens enhance adhesion for long-term bacterial inhibition.* J. Am. Chem. Soc. 2016, 138, 6455-6462.

Requirements: Your report should be written in 12 point, Times New Roman font, single space, in a double column format. It should be between five to ten pages including datasets in the form of figures or tables. The inclusion of the datasets should follow the format provided in the JACS example. Your figures should be in color where appropriate. You can include any literature figures if they are helpful to your analysis, but you must use high quality versions of these figures by accessing the HTML figure documents if available. You can also create your own figures using appropriate software (ChemDraw, Excel, Origin Adobe Illustrator, etc.). Your figures should be either single column or double column in width as is appropriate. Single column figures should be 3.25 inches in width and the height depends on the relevant information. Double column figures should be 7 inches in width. Also please include the most relevant equations or balanced chemical reactions to provide clarity to the chemistry that you are describing in your report. All figures, tables, and equations should be prepared in numerical order and referenced in the main text.

Deadlines:
Rough Draft
- July 24, 2023 by 5 pm
- Submit via email to your mentor and the project director at reu.pr.climb@gmail.com.

Final Draft (Mentor approved and signed)
- August 1, 2023 by 5 pm
- This draft must be approved by your mentor and include their digital signature.
- Submit to the project director at reu.pr.climb@gmail.com.