Science Writing Workshop - Bi3112 Jeff Nekola Wednesday 16-17:50; D31-239 Autumn 2024

## **SYLLABUS**

Writing a successful scientific paper is not just about having a compelling question, good experimental design and convincing results. It is also about presentation. It is about helping the reader understand why the work is important through use of a structure that presents a story with a clear and interesting beginning, a cogent middle, and an ending that generates a catharsis as the reader's world view is changed in some way – whether it be a revolutionary new theoretical concept or the simple discovery of a new rare species population. Without such a clear narrative, scientific research can easily become bogged down in pedantic details, and readers are lost along the way. Such papers make up a good proportion of the 2/3 of published works that are never cited again and vanish into the academic void. My recommendation is for others to remember that even through we are scientists who are limited to writing in a pre-defined format about replicable, empirical data, our work also needs to be framed as compelling stories told in simple and clear but beautiful language. And to do that we must embrace and be comfortable with our artistic side as well.

## Weekly topics:

1: Introduction; class structure; the workshop environment.

2: Finding your story, where are you starting, what are you doing, and what catharsis do you want to invoke?

3: the creative non-fiction model within the pre-defined form of science writing. how to write clearly and elegantly; prose poetry; high information to word content..

4: Finding your audience: determining a journal - IF vs. appropriateness. Understanding your primary (editor), secondary (reviewers), and ultimate (general scientific) audience. How do they differ? how can you tailor your story to each?

5: How to craft an introduction; things to and not to include.

6: Methods: how much is too much or not enough?

7: Results: making pictures be worth 1000 words. choosing the images and tables / data upon which your story will be told

8: Discussion: generating catharsis; showing the reader how the data leads to a change in world view

9: Titles and abstracts. Getting yourself on the reader's radar and convincing them to let you take up some amount of their time

- 10: Responding to review comments
- 10: Workshopping
- 11: Workshopping