**Writing a Genome Announcement**

Writing a scientific manuscript describing the full set of characteristics of your newly identified phages is a great way to culminate the SEA-PHAGES year-long experience and obtain external recognition of this scientific contribution by you and your students.

This QUBES resource provides several documents to support you in writing a relatively short and easily developed manuscript that can be submitted for publication.
This QUBES resource includes:

1. Templates for Data Collecting and Writing

2. Suggested Framing for Writing a Genome Announcement with students in the SEA-PHAGES course

3. Other Tips

**1. Templates for Data Collection and Writing**

Three templates are included in this QUBES resource to assist students and faculty in the process of data collection and drafting a Genome Announcement.

1. **Genome Announcement Data Collection Template.**
The Genome Announcement Data Collection Template is an editable Excel file that we recommend using to collect all the information that will need to be included as part of the Genome Announcement. The file is organized with a series of tabs; each tab corresponds to information required for different sections of the Genome Announcement. It is suggested that data collection be completed before writing the Genome Announcement. Faculty can complete this task themselves, or preferably assign it to a few or groups of students, and have the students double-check the information in the template.
2. **Genome Announcement Template.** The Genome Announcement Template is an editable Microsoft Word document that outlines the various sections of a Genome Announcement and the information required for each section. On the left side of the document, a series of comments provide additional guidance for each section, to ensure the all the required information for a given section is included. The comments also include sample text from previously published Genome Announcement (with hyperlinks) to help students craft paragraphs that describe their data. The Genome Announcement Template is designed to be used with the Genome Announcement Data Collection Template.
3. **Genome Announcement Faculty Checklist.** The Genome Announcement Faculty Checklist is designed as a tool for faculty to double-check their final Genome Announcement draft. Before submission of the Genome Announcement to SEA for internal review, faculty should use this checklist to ensure all required information is included in the Genome Announcement.

**2. Suggested Framework for Writing a Genome Announcement in a SEA-PHAGES Course**

* There are many ways to incorporate writing a Genome Announcement into the SEA-PHAGES course. Faculty could require each student to draft a Genome Announcement. The Genome Announcement could be a graded assignment or extra credit. Alternatively, writing a Genome Announcement could be optional, with authorship as motivation for participation.
* The goal of writing and publishing a Genome Announcement should be discussed as a major course outcome at the start of the semester. Faculty should check the [seaphages.org](http://seaphages.org) website for up-to-date information regarding deadlines for submitting a Genome Announcement at the reduced rate.
* As genome(s) are being annotated, faculty and students can begin to collaboratively fill out the Genome Announcement Data Collection Template. The completed Genome Announcement Data Collection Template can then be used by students working on writing the Genome Announcement using the Genome Announcement Template. Alternatively, the Genome Announcement Data Collection Template can be completed after annotation and set the tone for the writing process.
* Students should be given a deadline to complete their Genome Announcement draft (timeline determined by faculty).
* For classes working collaboratively to write a Genome Announcement, students may peer review student writing and determine consistencies and novel findings (students highlight best/favorite components in each other’s work).
	+ Alternatively, if the Genome Announcement is for a class grade, faculty and students can evaluate the drafts and provide feedback using the Genome Announcement Rubric included in this QUBES resource. Faculty could also choose to award points for the peer review.
	+ The class then comes together to finalize the Genome Announcement (can do it in a commonly shared Google docs document)
* Students and faculty check the final Genome Announcement draft using the Genome Announcement Faculty Checklistbefore submission to SEA for internal review (see note at the beginning of this document).

**3. Other Tips**

**3a. Genomes to Include in a Genome Announcement**

* A single Genome Announcement may include information for many annotated genomes even though they are not in the same cluster. Faculty could also consider publishing a Genome Announcement for a single phage or a group of related phages (e.g., same cluster). Additionally, faculty could consider working collaboratively with another SEA-PHAGES school.

**3b. Resources for Improving Scientific Writing**

* The Genome Announcement is very short and is not a complex writing assignment. Students should be encouraged to read 1-2 recent Genome Announcement as examples before writing their own Genome Announcement. Sample Genome Announcement are included as hyperlinks in the Genome Announcement Template. Please note that Genome Announcement written before fall 2022 may not contain all the required information, as the guidelines for the Genome Announcement have since changed. Students and faculty are encouraged to use the sample Genome Announcement in the Genome Announcement Template or other recent Genome Announcement published by SEA institutions as examples.
* Campus writing centers or online writing resources (Purdue OWL) can be valuable aids to assist students in the writing process.

**3c. Assessment**

* If writing a Genome Announcement as a graded assignment, the Genome Announcement Rubric can assist students in peer grading or faculty grading.

**3d. Publication Cost**

* The HHMI SEA program engages with scientific publishers on behalf of SEA faculty for discounted publication fees. To learn if you can submit your manuscript to Genome Announcement at a discounted rate, contact the SEA Team.
* Potential sources of funds may include the Dean or Department Chair.
* Other options for cost-sharing include working with other SEA institutions to write a collaborative Genome Announcement and share the cost, student UG research funds, or student government funds.