Guidelines for Data Usage, Determining Authorship, and Acknowledging Contributions in SEA Research

The datasets and resources generated by the SEA-PHAGES and SEA-GENES projects offer tremendous opportunities for continued exploration by SEA scientists. When initiating, conducting, and publishing SEA research, whether it be the core SEA research products (i.e., annotation of a genome discovered by SEA students or construction and screening a GENES library for a program-assigned phage) or projects that go beyond the scope of these, it is important that decisions on project collaborations, data usage, authorship, and acknowledgements honor the collegiality and community spirit of the SEA and

- be made transparently,
- be respectful of the ideas and plans of others,
- foster collaboration not competition,
- be inclusive of all who contributed significantly to the project conception, data collection and analysis, and manuscript preparation,
- be decided at the initiation of a project and reviewed and modified as needed over the lifespan of a project.

The SEA program has developed the following guidelines to help you navigate decisions around collaborations and publications. These guidelines likely do not cover all possible scenarios that will be encountered within the SEA community. These guidelines are also subject to change as the SEA community continues to grow and evolve.

Always feel free to reach out to the SEA team directly (<u>info@seaphages.org</u>) if you have questions or want to talk about your specific scenario as you plan for your research.

Terms of Use for SEA Data and Reagents in Research

- Data that are deposited into SEA databases (i.e., PhagesDB, Phamerator, GenesDB) are available for all to view and download for classroom use.
- Deposited data are also available for use in research analyses (e.g., annotation, bioinformatic
 comparative analyses). When initiating these projects, we ask that you keep all relevant parties
 informed of your work (review the specific terms of use for each program database posted on
 the website and see the guidelines in the next section of this document).
- Data that are published in GenBank or in journal articles can be used according to the terms of those publication venues and with proper citation.
- Publications that rely heavily on data found in program databases (i.e., PhagesDB, Phamerator, GenesDB) should cite the papers describing these resources (<u>PhagesDB</u>; <u>Phamerator</u>) or give the URL (genesDB.org).
- Archived phages and GENES pExTra plasmids are available for further exploration upon request to the program and will require completion of a Material Transfer Agreement.
 - Contact <u>info@seaphages.org</u> to request these materials and make sure that the shipping address and legal contact info for your institution are up to date on seaphages.org.
 - When making requests to the SEA program, please keep in mind that our aim is to support faculty in successfully conducting PHAGES and GENES core research.
 Additional requests for research reagents and support outside the scope of these projects will be accommodated on a case-by-case basis, as our capacity allows.
 - o If requested reagents will be used directly for the PHAGES or GENES projects, program staff will notify faculty from the original finding institutions.
 - If requested reagents will be used for research that goes beyond the scope of core SEA projects, it is your responsibility to notify faculty from the original finding institutions of your plans for these reagents (see next section).

Initiating Research Projects and Collaborations in the SEA

- For core SEA research projects that (i.e., PHAGES genome annotations and GENES screens), keep the SEA program informed of your intention to publish to ensure that you can participate in journal partnerships.
- It is strongly advised to collect student author information (including a permanent, personal email address) and publication consent early in your research semester to ensure that all students can be included in resulting GenBank submissions, pre-prints, and publications.
- If you are planning to conduct research that utilizes SEA reagents and/or data and goes beyond
 the scope of the core SEA research, we ask that you take the following steps as you initiate this
 work:
 - 1. Draft a brief research plan, considering the following points:
 - a. What are the scope and specific aims of the proposed project?
 - b. What are the set of phages, genomes, or genes that you plan to study?
 - c. Are you looking for collaborators?
 - d. What will qualify for authorship on this project?
 - e. What is your tentative timeline for this work?
 - Email your project plan to the SEA team (<u>info@seaphages.org</u>) for feedback and to arrange material transfers. Our intention is not to gatekeep your research but to provide input on potential research overlaps in the community, facilitate collaboration, offer advice on project feasibility, and help ensure scientific alignment across the program.
 - 3. Email your revised project plan to inform any primary SEA faculty who have generated reagents (i.e., phages and plasmids) of your plans to utilize them for this project.
 - 4. Post your project plan on the new seaphages.org faculty lounge forum space Plans for Additional Research Explorations. The goal of this is to make others aware of your research plans, to solicit collaborators, get feedback from the community, and to avoid project 'scooping.' Feel free to provide updates on the topic thread throughout the lifespan of the project!

Authorship and Acknowledgements for Resulting Publications

- For a GenBank submission resulting from your annotation work,
 - All faculty and students who were involved in the annotation of your phage genome should be included as authors.
- For *a genome announcement* publication resulting from your annotation work,
 - All faculty and students who were involved in the bioinformatic characterization of the genome should be included as authors.
 - Where possible, faculty and students who were involved in the isolation and purification of the phage would also be included as co-authors. Alternatively, they can be acknowledged in the manuscript.
 - SEA team members involved in the research should be acknowledged (e.g., Debbie and Dan).
- For a SEA-GENES G3 Mutant Screen Report,
 - All SEA faculty and students involved in library construction and phenotypic data collection, data curation, and manuscript prep should be included as authors.
 - As part of each GENES school's training process, the program will support publication of your first mutant screen report, with Danielle included as a co-corresponding author.
 - Other SEA team members can be included in the acknowledgements section as appropriate.
- For additional research publications using reagents and data generated at your institution,
 - All faculty, students, and SEA staff that contributed significantly to study conception, data collection and analysis, and manuscript preparation should be included as authors.
- For additional research publications using reagents and/or data generated at another institution,
 - o All faculty, students, and SEA staff that contributed significantly to study conception,
 - o data collection and analysis, and manuscript preparation should be included as authors.
 - o Published works detailing data from other SEA institutions (e.g., a GenBank accession

- number or genome announcement) should be cited.
- Unpublished observations listed in SEA databases should be cited by listing the appropriate database URL.

SEA researchers from other institutions who contributed the reagents and/or specific data that were utilized in the study should be acknowledged, listing individuals where possible or a general acknowledgement (e.g., SEA-GENES researchers at SEA University)

Publishing your Research

- Confirm authorship plans once project is completed and ready for write-up.
- Once you have a manuscript draft, send it to co-authors and the SEA team for scientific review and feedback.
- Make sure you have gathered written consent and contact info from all authors to preprint and/or publish.
- Submit to the preprint server and/or journal of your choice.
- Notify the SEA team of your publication so we can update the publication list on seaphages.org!