AGENDA

Learning Objectives

Participants will be able to:

- Characterize and investigate phage genomes, including the details of gene calling, functional assignments, and preparing a final product of a submission file that meets QC requirements.
- Install and use the software for annotation/analyses of phages. The software includes DNA Master, Phamerator, PECAAN, and other web-based tools.
- Identify basic phage biology concepts that underlie the bioinformatic investigations.
- Devise a systematic plan for implementation of phage genomics in their classroom.

Pre-req

Participants will bring a computer with all software installed and tested. See computer requirements and software installation information at http://seaphages.org/faculty/information/#bioinformatics.

Friday, December 13

Time	Location	Topic
2:00-4:00p	Conference Center	**Registration**
4:00	D124&D125	**Welcome and Introductions**
4:30	D124&D125	**Central Dogma Review**
5:30	Dining Room	Dinner
6:45	D124&D125	**Introduction to Genome Annotation* & Getting Started**
8:00	Pilot	**Social**

Saturday, December 14

Time	Location	Topic
8:15a	Dining Room	Breakfast
9:00	D124&D125	**Draft Functional Annotation**
10:00	Great Hall	Break
10:15	D124&D125	**Guiding Principles* Calling the Genes***
11:30	D124&D125	**Calling the Genes***
12:30p	Dining Room	Lunch
1:15	D124&D125	**Group Exercise: Initial Gene Calling**
2:30	Main Auditorium	**Debrief: Initial Gene Calling**
3:00	Great Hall	Break
4:00	D124&D125	**Group Exercise: More Gene Calling**
5:30	Dining Room	Dinner
6:45	D124&D125	**Group Exercise: More Gene Calling**
7:45	Pilot	**Social**

Sunday, December 15

Time	Location	Topic
8:15a	Dining Room	Breakfast
9:00	D124&D125	**Debrief: Specific Gene Calls**
9:30	D124&D125	**Assigning Functions***
10:15	Great Hall	Break
10:30	D124&D125	**Group Exercise: Assigning Functions**
11:00	D124&D125	**Debrief: Assigning Functions**
11:30	D124&D125	**Group Exercise: Formatting Concerns**
12:30p	Dining Room	Lunch
1:15	D124&D125	**Group Exercise: Special Cases: Frameshifts/tRNAs/and more**
3:00	Great Hall	Break
4:00	D124&D125	**Group Exercise: A different genome**
5:30	Dining Room	Dinner
6:45	D124&D125	**Inside the Black Box: Sequencing and Finishing Phage Genomes**
7:45	Pilot	**Social**

	Time	Location	Topic
Monday, December 16	8:15a	Dining Room	Breakfast
	9:00	D124&D125	**Putting it all together & compiling Notes**
	10:15	Great Hall	Break
	10:30	D124&D125	**Group Exercise: Notes**
	11:30	D124&D125	**Group Exercise: reverse genes and TAC, another genome - tRNAs**
	12:30p	Dining Room	Lunch
	1:15	D124&D125	**SEA Bioinformatics: Beyond the Basics**
	2:00	D124&D125	**Investigate Clusters**
	3:00	Great Hall	Break
	4:00	D124&D125	**Useful tools and Participant choice: What do you want to see again**
	5:30	Dining Room	Dinner
	6:45	D124&D125	**Ask Graham!**
	7:45	Pilot	**Social**

	Time	Location	Topic
Tuesday, December 17	8-9:00a	Conference Center	**Room Checkout Before Breakfast**
	8:15	Dining Room	Breakfast
	9:00	D124&D125	**Reflection on Annotation Process**
	9:30	D124&D125	**Best Classroom Practices to Improve Genome Annotations**
	9:35	D124&D125	**Group Discussions:** **Best Classroom Practices to Improve Genome Annotations**
	10:00	D124&D125	**Reporting of Group Discussion Information**
	10:30	Great Hall	Break
	10:45	D124&D125	**Faculty Panel:** **Examples of Successful Bioinformatics Implementation**
	11:45	D124&D125	**Closing Remarks**
	12:00p	Dining Room & Conference Center	**Lunch and Adjournment**