

2016 Bioinformatics Training Workshop Cohort 9

Dear Workshop Guests:

On behalf of the staff and facilitators, we look forward to seeing you at the SEA-PHAGES Bioinformatics Workshop, December 5-9, 2016 at Howard Hughes Medical Institute (HHMI) Headquarters. Detailed and updated information about the workshop; including the agenda, logistics and additional files and documents for the workshop will be posted here (<http://seaphages.org/meetings/19>).

The following list of items **must** be done before you get to the workshop. Items 2 and 3 on the list below involve installing software on the computer you will bring to the workshop, so you may want to start early and get help from your local IT people.

1. **Complete the pre-workshop survey by November 13**
(<https://www.surveymonkey.com/r/2016bioinformatics>)
2. **Install and run an update on a working copy of DNA Master on the computer you will bring to the workshop**
 - A. Download and Install DNA Master (<http://seaphages.org/software/#DNAMaster>)

Installation Instructions:

For a Windows computer: Go to the DNA Master website (<http://cobamide2.bio.pitt.edu/computer.htm>). Download and install the program as you would any other. Note that administrator rights may be required in order to install DNA Master. Follow the guidelines in the Installation Guide (http://phagesdb.org/media/docs/DNAMaster_INST_nov2015.pdf).

For a Mac computer: DNA Master is designed to run on a Windows PC. Mac users need to install software that can run Windows programs on your Mac. Install a virtual machine that will run Windows programs. There are several software programs that act as virtual machines. We recommend using "Virtual Box", which can be downloaded here: <https://www.virtualbox.org/wiki/Downloads>. You will be required to run a licensed version of Windows in the virtual machine, and may need to obtain the software from your home institution. Install the Windows Virtual Machine into Virtual Box, and then install DNA Master on your Windows VM.

- B. Update DNA Master. A successful update of DNA Master is critical:
 - i. Start DNA Master and make sure no errors appear.
 - ii. Update the program under **Help → Update DNA Master**.
 - iii. Check the software version under **Help → About**.
As of this writing (10/18/16), DNA Master is Version 5.22.23 Build 2486, 3 Oct 2016. For help, check the FAQs (<http://phagesdb.org/DNAMaster/faq/>) and the Forums (<http://seaphages.org/forums/forum/3/>).

3. Install the 2017 SEA-PHAGES Virtual Machine for Windows and Mac computers that you will bring to the workshop

The SEA Virtual Machine (VM) is a virtual Linux computer with several important programs already installed. It can be installed on Mac or Windows computers using VirtualBox. Additional information and installation instructions can be found here (<http://seaphages.org/software/virtualmachine/>)

The SEA VM is a large file (~4.1 Gb to download, and ~11 Gb when uncompressed) so we recommend downloading on a fast, wired connection rather than wirelessly and ensuring you have enough free hard drive space to store it.

4. Get started with the CrystalP genome

We will annotate the genome of mycobacteriophage CrystalP during the workshop. Download the genome from the PhagesDB page (<http://phagesdb.org/phages/CrystalP/>), and complete Sections 1.5, 3, and 4 of the DNA Master Annotation Guide (http://seaphages.org/media/guides/Annotation_Guide_12.01.2015.pdf). Be sure to modify your DNA Master Preferences as described in Section 1.5.

5. Video tutorials

There are video tutorials available for several procedures we'll be learning how to do during the workshop. These will give you a preview of what we'll be doing, or can be used to help teach or remind your students what to do. You can view the videos here (<http://seaphages.org/videochannels/2/>).

If you experience any difficulties downloading and installing the software, or if you anticipate needing to borrow an HHMI laptop, please email us at info@seaphages.org before the workshop.

Safe travels and we will see you soon!