## Richardson Lab of Applied Microbiology

# Frequently asked questions for volunteers

**Hello, if you have found this document, it probably means you have some questions regarding the taking of microscopy images or the processing of them. If you have a question that remains unresolved after going through this document, don't hesitate to email rer26@cornell.edu or jsn74@cornell.edu.**

1) **Blue light flicking when turn on the microscope?**

A: no need to worry about that unless it turns red. If it turns red, this indicates the microscope needs to be charged

2) **Cannot find focus**

A: 1. check if you have removed the cap of the microscope 2. check if you're turning the magnification or the body of the microscope (the clap is not very tight so it's easier to turn the body if you don't hold it very tight);

3) **What is a good sample frequency?**

A: For the 2021 season, it's the same as your local HABs monitoring programs sample schedule.

4) **Do we need the +/- button?**

A: Not necessary. Just keeping it at 1.0 (lowest) would be good for consistency.

5) **How do you clean the rim of the microscope between samples?**

A: You can wipe it off with a paper towel and then rinse it with tap water when you are done looking at all your samples. Do not get the actual microscope wet. But if necessary the transparent acrylic rim on the scope is removable and could be more thoroughly cleaned if you take it off.

6) **How to upload photos/videos to the google drive folders?**

A: Put them on your desktop and drag them into the folder; or download a google drive app and upload through it

7) **How to name pictures - make sure you include bloom number if you sent the sample to CSI**

A: if your sample for microscopy was also sent to CSI for toxin analysis (i.e. you used a HAB HArrier botte) please include the Bottle/Bloom # in the pict/vid names. E.g. for B1 on 3458 zone I named it "Field20-3458-7:4 B1 (1)-RR.JPG"

8) **Why are colonies sticking to the sides of the microscope and petri dish? How do we fix this problem?**

A: This is tricky since it's a factor of the plastic/water/colony interaction. My experience has been that this issue only occurs visibly in very very dense samples.

9) **Having trouble taking well-focused zoomed in shots showing only 3-5 lines on micrometer?**

A: Zoomed in shots will show 2-3 lines across usually. Note that the focus on the grid will be a bit below the sample; you will need to use the fine focus to get the colonies in focus (ie. they will be at slightly different focal plane than the grid lines. The gridlines being a bit blurry is fine

10) **The image is pinkish or otherwise colored strangely**

A: Go to a darker or work inside a box to block ambient light.

11) **Issue with microbubbles which are perfect circles and/or a reflection of the lights from the microscope (e.g. an 8 light halo reflection)**

A: Allow refrigerated sample to come to room temp before dropping sample into petri dish; Alternately use the dropper to dislodge microbubbles on the petri dish surface by moving back and forth around the bottom of dish