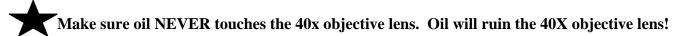
Bio 139 Microbiology Lab #1

Protocol for using 100x (oil immersion) objective lens:

- 1. Visualize specimen with 40x objective (high/dry).
- 2. Rotate objective lens ring to a position *between* 40x and 100x objectives (neither lens will be locked in place.)
- 3. Remove slide from stage. Add a drop of immersion oil (found in bench rack). Return slide (with oil) to stage.
 - Or, leave the slide on the stage and add the oil drop directly.
- 5. Rotate the 100x objective lens into place.
- 6. Use coarse focus knob to raise the stage until the 100x lens *just* touches the oil.
- 7. While looking into the microscope, use fine focus knob (turn clockwise, to **raise** the stage) to find the plane of focus where the specimen is.

For speed, you may use the coarse focus knob first, then fine focus, with two cautionary notes:

- If you raise the stage too much, you can unwittingly crack your slide by driving the lens into it:
- When focusing with the coarse focus knob, the plane of focus in which you can see your specimen will flash by *very* quickly, so be alert for the flash, then fine focus *back* down to it.
- 8. When finished, if the slide is not to be saved, place it in cardboard waste box on benchtop (for glass & sharps), NOT in the regular trash.
- 9. Wipe the oil from the 100x objective lens with LENS PAPER, **never** a paper towel as it will scratch it.



10. Always return the objective to a "start" position (4X). Never leave the 100x objective in place when returning the microscope to the cabinet.