



Recent Drama – Microscope Ocular Calibration – Pathology

Friends,

Pathologists and Dermatologists may have a reticle scale mounted in one of their oculars. Typically, these scales are 1-100 units. The ocular scale cannot have any visible calibration units since the image of the scale remains fixed in the ocular, while the viewed cellular specimen gets bigger or smaller depending on the objective used. CAP™ (College of American Pathology) requires that these ocular scales be calibrated by using a Stage Micrometer slide that has actual unit measurements ... typically in millimeters. This calibration procedure has always been part of our 2-Day Microscope Training Program (MicroscopyUSA.com).

The recent drama comes from the fact that in June of 2020 CAP sent out a communication (COM.30690) stating that failure to perform this calibration would result in a Phase II deficiency during CAP laboratory inspections. This communication stirred up a hornet's nest because notoriously pathologists have struggled mightily to perform this calibration correctly and almost always do not document the calibration correctly.

The spill-over consequence to this drama is that biomed departments are being asked in much higher frequency to perform this calibration for the laboratory.

If you have been through our training program; here are some important steps to remember in calibrating ocular micrometers.

- Always remind the laboratory staff and/or pathologist that the calibration calculations, once completed and attached to the outside of the microscope, cannot be used on any other microscope ... even an identical microscope in the lab!
- Always remind the laboratory staff and/or pathologist that if any components on the microscope are changed then the entire calibration procedure must be redone. (This includes the ocular, the head, or any of the objectives.) Once calibrated, CAP says that this calibration procedure does not need to be updated as long as no microscope components have been changed.
- Microscopy USA recommends that a labeled certified traceable NIST™ Stage Micrometer* be used for these calibrations. List the slide certification number within the calibration documentation. If a NON-NIST Slide Micrometer is used ... this fact should also be listed in the calibration documentation. NIST Stage Micrometers are expensive ~\$620.00 each; if you need one, we can order one for you. MicroscopyUSA.com/needed-tools-and-supplies (Unless you specifically ordered an NIST micrometer, the one included in our standard tool kit is a NON-NIST micrometer.)
- Make sure that the calibration documentation is properly listed and posted on the microscope. Also, make a copy of this information for your service report to the laboratory.
- Remember, it is the laboratory's responsibility to perform this calibration; you do not need to offer to calibrate an ocular micrometer unless the laboratory staff requests that you do.

(*National Institute for the Standardization and Technology)

Hope all this helps to explain the drama!

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