

Microphotographs using a cell phone



Starting remarks

Purpose: quick and easy documentation of morphological and anatomical observations on the binocular and microscope

Procedure

- 1) Set up a preparation on the imaging device and focus the illumination and targeted structures. The image is ready for taking a shot
- 2) Set the ocular grip on adapter at the approximate opening of selected device ocular (that without markings, *e.g.* reticle). Adjust the plate support, so that the objective lens on the cell phone will not be covered
- 3) On the cell phone, activate the camera app and select the 1x camera
- 4) Set the cell phone on adapter, keeping the command knobs on the cell phone sides free
- 5) Moving the adapter arm with ocular grip, position the 1x cell phone lens at the approximate centre of ocular grip opening. The top of cell phone should lay on the plate support. Tighten the screw on the arm back slightly only
- 6) Fasten the adapter with cell phone to the selected ocular, firmly tightening the screw of ocular grip
- 7) Align the camera lens on the preparation image in the ocular, moving the arm of ocular grip until the ocular rounded field of view with preparation in the middle is well visible and centred on the cell phone window. Firmly tighten the arm screw
- 8) Increase the magnification on cell phone, so that the preparation fills the field of view on cell phone, whereas the rounded edge of the ocular field of view has disappeared
- 9) Set a blue filter on the light source. Verify the focus and illumination prior to making a shot
- 10) The cell phone on its adapter can be easily mounted in and out, for continuing observation or moving to another device (repeat point 6). Adjust the lens and ocular alignment, repeating (7)
- 11) Edit the picture, *e.g.* cropping the image to preparation and correcting the brightness and contrast, as needed