

Using the Low Magnification Microscope

Introduction

The Olympus SZX12 microscope in ACHS’s microscope lab has 0.5x and 1.2x objectives and the ability to zoom. Its 12 Megapixel digital camera produces color images up to 4030 × 3070 pixels. This document deals exclusively with microscope operation. For instructions on image capturing, see ACHS-113 *Using the Olympus Digital Microscope Camera*.

Basic Operation With Normal Light and Dark Field

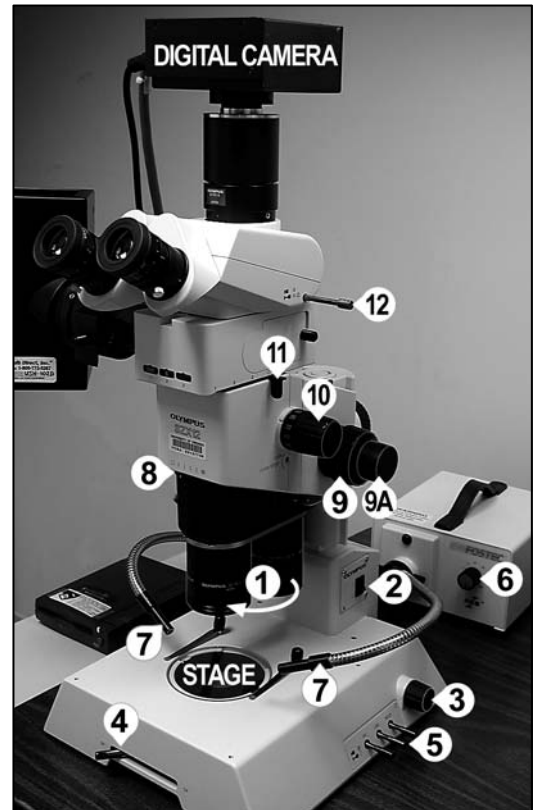
Refer to the picture at right.

1. Rotate the lens column clockwise (1) to choose the 0.5x or 1.2x objective as necessary.
2. Flip the brightfield/darkfield selector (4) to **DF** for Dark Field.
3. Turn on the Fostec lights (6) and move the wands (7) if necessary.
4. Push the fluorescence filter (11) back to the **O** position.
5. Adjust the coarse focus (9), fine focus (9A), and zoom (10).
6. Adjust the condenser slide (8) if the image is too bright.

Basic Operation With Normal Light and Bright Field

Refer to the picture at right.

1. Rotate the lens column clockwise (1) to choose the 0.5x or 1.2x objective as necessary.
2. Flip the brightfield/darkfield selector (4) to **BF** for Bright Field.
3. Turn on the microscope’s light source (2) and adjust the brightness (3).
4. Push the fluorescence filter (11) back to the **O** position.
5. Pull out all three filter slides (5) to remove the filters from the light path.
6. Adjust the condenser slide (8) if the image is too bright.
7. Adjust the coarse focus (9), fine focus (9A), and zoom (10).



Filters

Choose a filter (5), if necessary:

FR: Frosted/diffused filter. Distributes illumination evenly with 0.5x objective at lower zoom levels.

LBD: “Light Balanced Daylight.” Color temperature conversion filter. Adjusts the color temperature for color images.

ND25: Light intensity adjustment filter with 25% transmittance. Adjusts brightness.