

Duke 1A Fellows Clinic Urine Microscopy

****Call Dr. Matthew Sparks for questions about how to use the microscopy 919-684-9737****

Using the Olympus CX43 microscope- this microscope can be used in brightfield and phase contrast. Phase contrast will give cells a 3D appearance and is ideal for urine microscopy especially for looking at cell morphology (like dysmorphic RBCs). TIPS- push the coverslip down on the slide. Wipe off excess fluid. TURN OFF AND CLEAN AFTER USE.

-Power on- Turn both the microscope (on the bottom left side of scope) and camera on (the light should be blinking blue on the camera)

-Connection camera to your cell phone- Download this the EP View app to your phone either iPhone or Android for problems with EP View app please call Technical Assistance Center at 800-225-8330, Option 4, then Option 1, and one of the Olympus support engineers will assist you. You must be near the microscope.

- Go to your wifi setting and search for the camera hotspot network
- Network should be EP50 and a series of numbers/letters
- you will be prompted for password... it is 12345678
- go back to the EP View app after connected to hotspot and wait about 1 min and the image on the camera should appear on your phone. Make sure you allow the app to access your phone's location. This will allow you to take photos and videos.

-use of brightfield- bright field is how you view slides at both the VA and Duke Hospital. If you are switching from phase contrast to bright field, make sure you turn the brightness adjustment down (**GREEN ARROW**). Each of our objectives is capable of brightfield (BF) 10X, 20X, 40X, 60X, 100X.... 100X is oil immersion, please DO NOT use this.

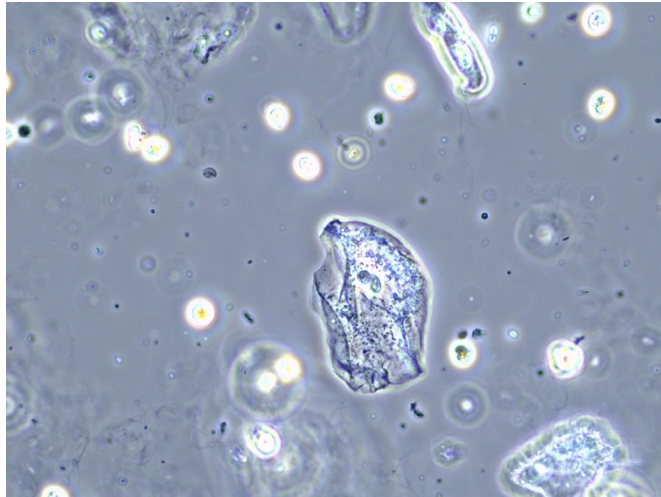


- Turn the condenser to BF (**RED ARROW**) for Bright Field
- Look at the slide under 10x first to bring into focus. You might have to close the iris diaphragm by moving the lever to the left (**YELLOW ARROW**) if too bright
- You will be able to move between different objectives to view image (10x→60x)

Duke 1A Fellows Clinic Urine Microscopy

****Call Dr. Matthew Sparks for questions about how to use the microscopy 919-684-9737****

-use of phase contrast (Ph)- This is a very powerful technique that can obviate the need for stain. Below is image unstained with phase contrast



- Turn to the correct phase contrast (Ph) condenser (**RED ARROW**) picture below
 - o for 10X **Ph1**
 - o for 20X **Ph1**
 - o for 40X **Ph2**
 - o for 60X NO PHASE CONTRAST
 - o for 100x oil immersion **Ph3** (ONLY FOR Dr. Sparks to use)



-for polarizing specimen- use the bright field BF condenser. And put the polarizer on the light well (**BLUE ARROW**)

- Push the polarizer compensator (**PURPLE ARROW**) until it slightly clicks.
- Turn the polarizer on the light well (**BLUE ARROW**) until dark and crystals emerge if present.

