BX51 Start-up

1) Fluorescence only, turn on the mercury burner
2) Turn on the camera
3) Confirm the camera filter is in the desired position (i.e. grayscale or RGB)
4) Turn on the microscope
5) Turn on the computer
6) Start the camera software
7) Confirm the DIC analyzer is out of the lightpath
8) For transmitted light imaging, establish Köhler illumination

BX51 Objectives

All are
U = Universal (Brightfield, Darkfield, DIC, and Polarized Light)

PlanFl = plan-semi-apochromat = corrected for 4 colors chromatically and spherically

Objectives			NA	Resolution R=0.61*λ/NA obj	
UPlanFL	4x/0.13		0.13	2.581	µm
UPlanFL	10x/0.30		0.3	1.118	µm
UPlanFL	20x/0.50		0.5	0.671	µm
UPlanFL	40x/0.75		0.75	0.447	µm
UPlanFL	100x/1.30	oil/iris	1.3	0.258	µm

Shut-down – only shut down if there are no users scheduled within an hour

1) Turn off the camera software
2) Shut-down the computer
3) Turn off the camera
4) Set the camera filter to grayscale
5) Remove the DIC analyzer from the lightpath
6) Turn off the microscope
7) Remove oil from the 100x if used.
8) Position the 4x or 10x objective over the microscope stage.
9) Always turn the mercury burner off last
10) Cover the microscope with the dust cover avoiding the mercury lamp housing

Pixel size by Objective for Images using the Retiga 2000R QImaging Camera at 1600 x 1200

4x = 541 pixels = 1000.00 microns = 1.85 microns per pixel
10x = 1352 pixels = 1000.00 microns = 0.74 microns per pixel
20x = 1702 pixels = 630 microns = .37 microns per pixel
40x = 1892 pixels = 350 microns = .185 microns per pixel
100x = 1351 pixels = 100 microns = .074 microns per pixel