CCD1: Single Channel Brightfield/Phase Photography

Microscope

- Push slider on LHS of actual camera IN (this pushes colour filters OUT of light path)
- Turn ON main green rocker on microscope
- Check switcher box is set to SPOT (not MM)
- Check slider on top-LHS of microscope is OUT
- Push the slider on top-RHS of microscope IN to see down binocular eyepiece
- Place your slide on the stage
- Use 'condenser phase wheel' at the front of 'scope to choose BF/ph1/ph2/ph3
- Check metal ring (above phase wheel) is totally OPEN then stop down a little
- Check polariser is OUT of light path
- Focus and select field of view
- Check the Kohler illumination

Computer

- Pull the slider on top-RHS of microscope OUT to send image to camera/monitor
- Turn on digital camera
- Log in to computer
- Open **SPOT** software
- Select **12 BF** from drop-down list in bottom right corner of SPOT interface (BF = 'brightfield' and 12 refers to 12Bits
- Use **live focus preview** to fine-focus image on screen
- Hit **F10** on keyboard to Compute Exposure Time
- Hit **F9** on keyboard to capture image
- **Save** image (TIFF) to a folder on your server

After you've finished

- Check CCD1 bookings on Brian; if microscope is booked during next couple of hrs, then leave everything turned on, just **log out** of the computer. If no-one is booked after you for 2hrs or more, then log out, turn off microscope, camera, arc lamp (if it was on), and start the stopwatch
- Clean objectives with **lens tissue**; clean stage and bench with normal tissue. Throw away tissues/lens tissue in green bins, slides and coverslips in orange glass bins.
- Please **put blue plastic cover over microscope optics**, but avoid contact of the plastic cover and the hot arc lamp!

Troubleshooting

- If error message says exposure too short, reduce light or add more neutral density filters
- Suggested light settings:
    - turn neutral density wheel on the RHS of the microscope to 1.5(front wheel) and 100%(rear wheel)
    - put small round ND filter over the glass covering the field iris
    - press colour temperature button