UCL Institute of Child Health

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Revised December 2014

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Prof. Jane Sowden, Developmental Biology Unit (Purchased in 2011)

No access without prior training by the Light Microscopy Facility Staff
Free of hourly charge for Sowden and Ferretti groups, £1 hourly charge for all other users towards the cost of the consumables is expected
Prof. Sowden team has priority over other users.
Users must always record their activity in the Log book
Problem(s) with the microscope should be reported as soon as they are noticed

General specifications

Microscopy techniques available

Objectives

Olympus UPlanFLN 10x Ph1 NA 0.3 WD 10.0 mm
Olympus LUCPlanFLN 20x Ph1 NA 0.45 WD 6.6-7.8 with correction collar
Olympus LUCPlanFLN 40x Ph2 NA 0.6 WD 3.0-4.2 with correction collar
Zeiss objectives can also be used

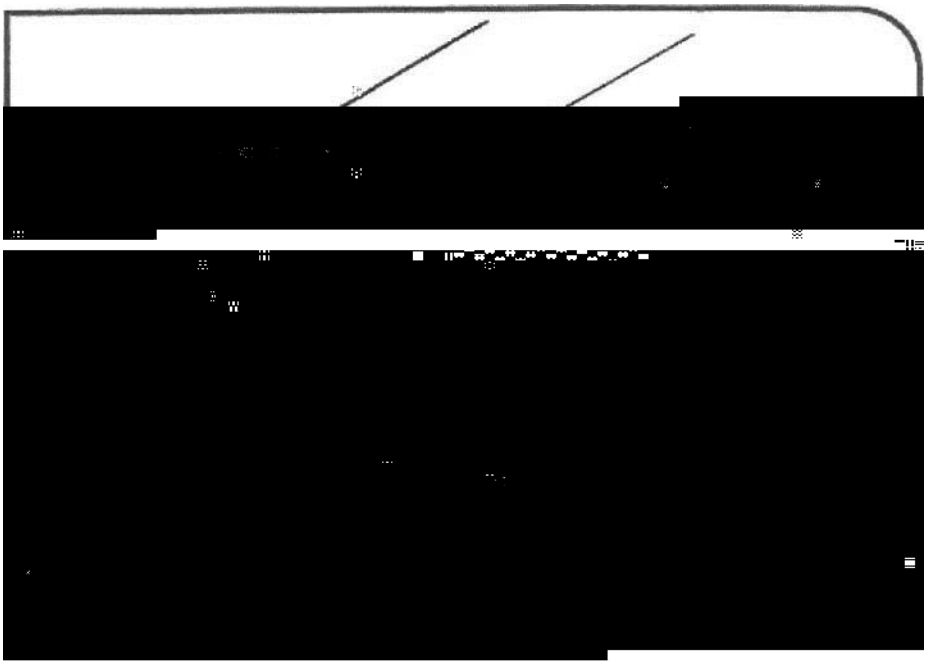
Filter cubes (see p11-15)

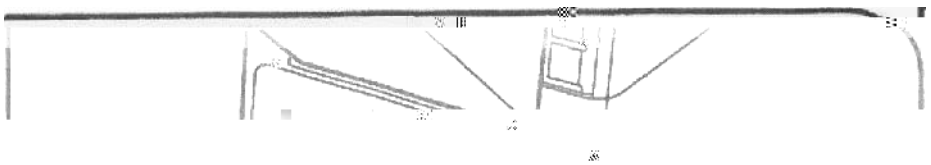
Position	Filter set name	Exciter	Beamsplitter	Emitter
1	DAPI	350/50x	400LP	

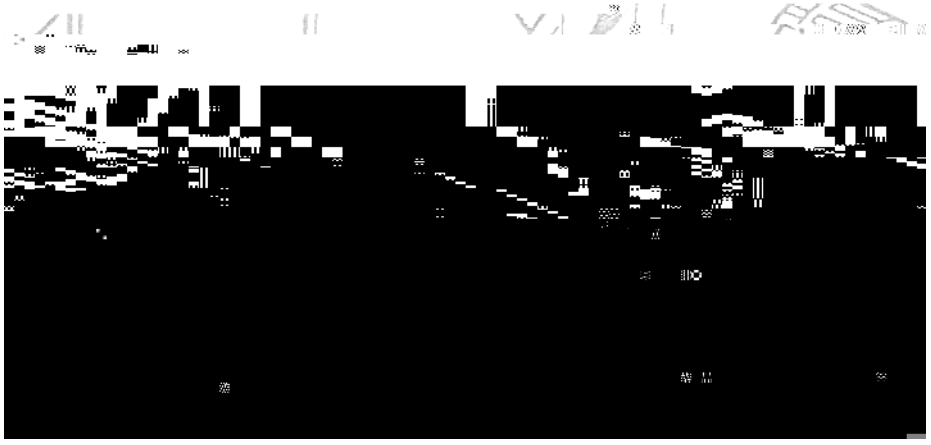
Halogen lamp operation:

Turning on the lamp

1. Make sure the light intensity control knob (5) is in the MIN (minimum inten sity) position on the microscope frame.
2. Make sure the light intensity control knob (1) is in the MIN (minimum intensity) position on the TH4 module.
3. Set the main switch (2) to "I" (ON) on the TH4 module.
4. On the microscope front, press the transmitted light ON-OFF button (6) so that the button is illuminated.
5. Adjust the brightness with the light intensity control knob (5).
6. To turn OFF, set the transmitted light ON -OFF button (6) to OFF







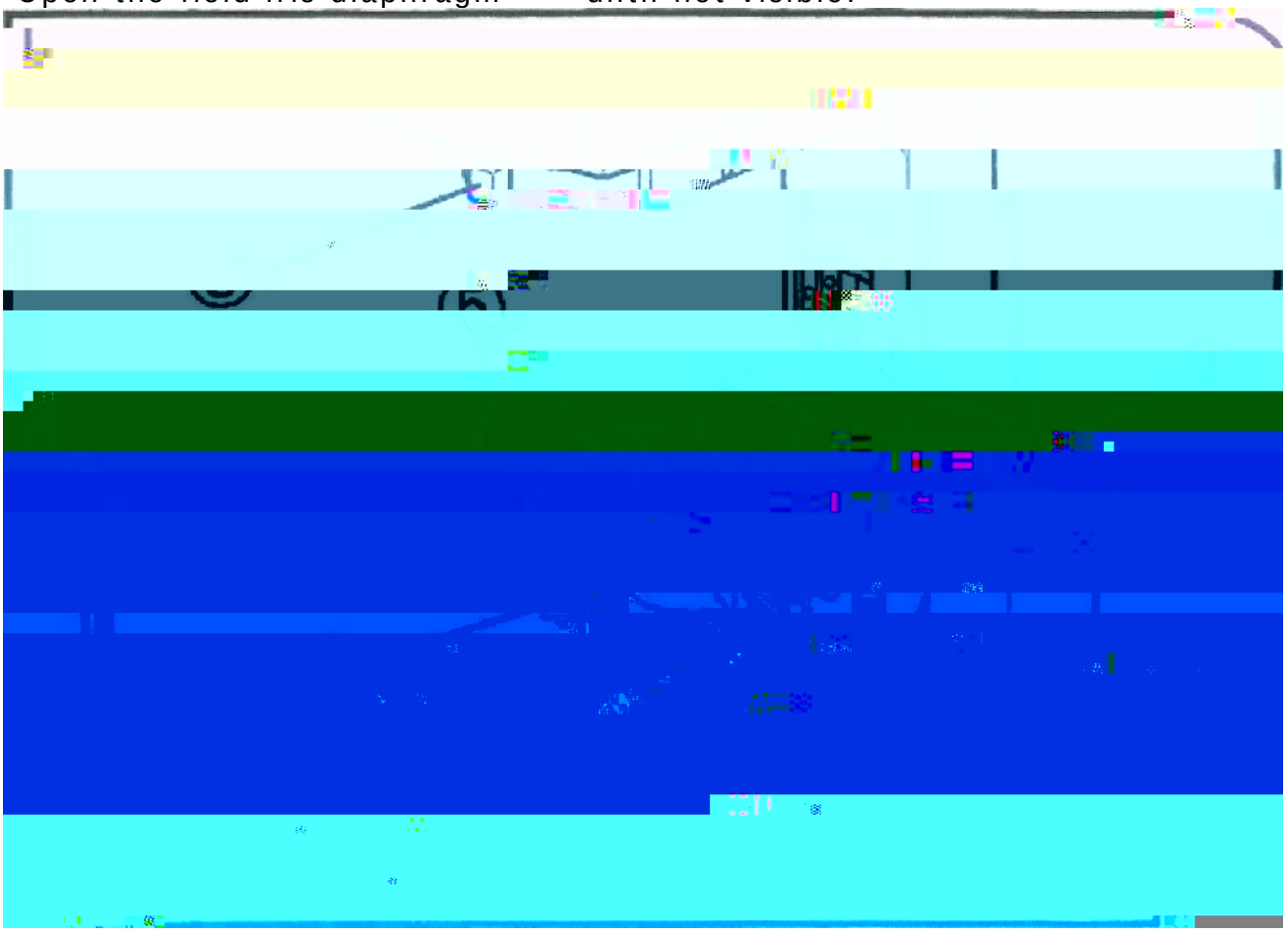
Halogen lamp operation:

Turning off the lamp

1. Set the light intensity control knob (5) to the MIN (minimum intensi ty) position on the microscope frame.
2. Set the light intensity control knob (1) to the MIN (minimum intensity) position on the TH4 module.
3. Set the main switch (2) to "0" (OFF) on the TH4 module.

Kohler illumination:

1. Rotate the turret (1) to the "BF" position. (Any of positions 3,4 or 5, position 1=Ph1, 2 = Ph2)
2. Slide the aperture iris diaphragm lever to fully open the diaphragm.
3. Slide the field iris diaphragm lever to the fully open position.
4. Engage the 10x objective and bring the specimen into focus.
5. Using the field iris diaphragm lever , completly close the field iris diaphragm.
6. Rotate the condensor height adjustment knob (4) to bring the field iris diaphragm image into focus.
7. Center the field iris diaphragm using the condenser centering knobs (5).
8. Open the field iris diaphragm until its image reach the limits of the field of view, adjust the centering if necessary.
9. Open the field iris diaphragm until not visible.



Step 6 Step 7 Step 8 Step 9

Position #1
49000 3 5 0 0 (en/>B5 (en0 (enxETBT1.0364 0408.0364 01 9.e)-802[(P)0 1 10ETBT

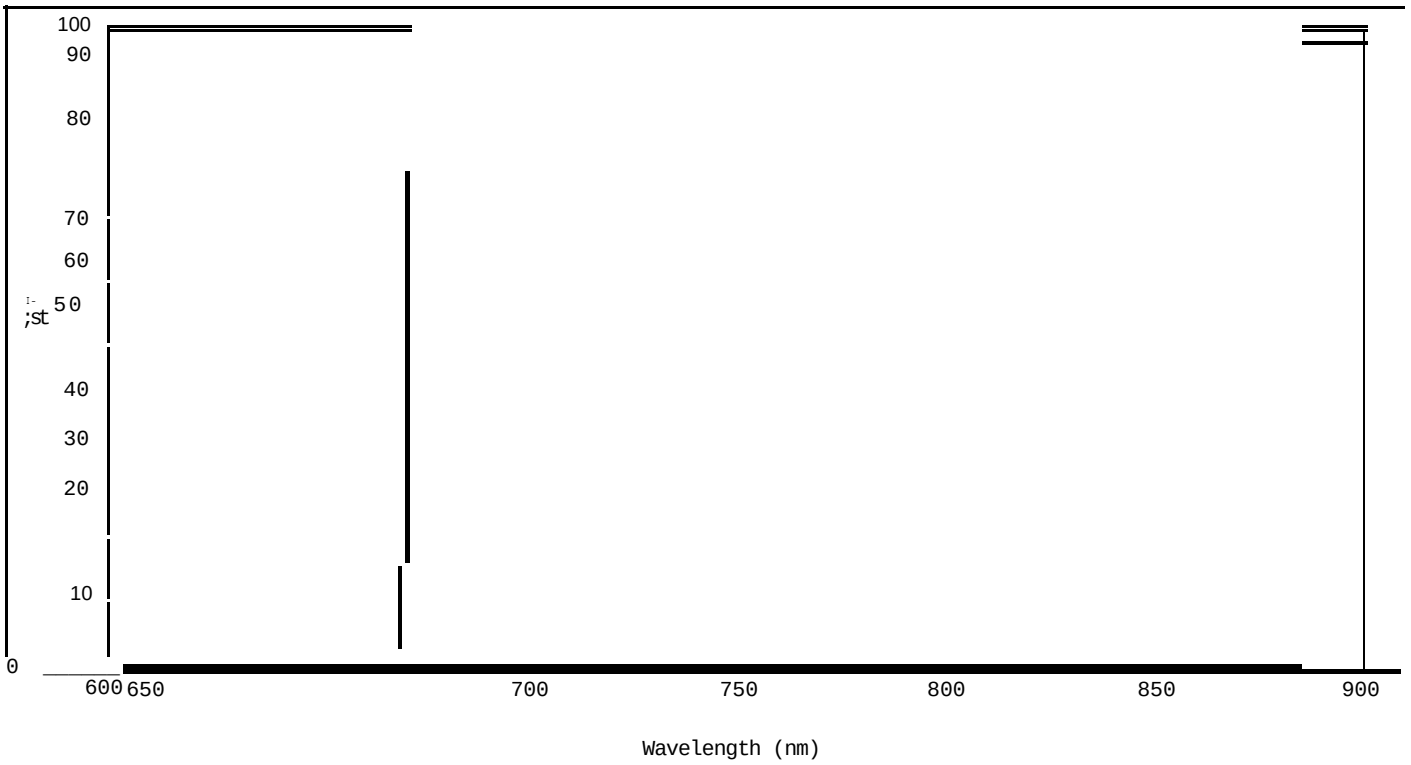
Position #2
41017 EndowGFP/EGFP Bandpass
Emitter ET470/40x
Beamsplitter 495LP
Emitter ET 525/50m

Wavelength (nm)

H0470/40x Q4951p
HQ525/50m

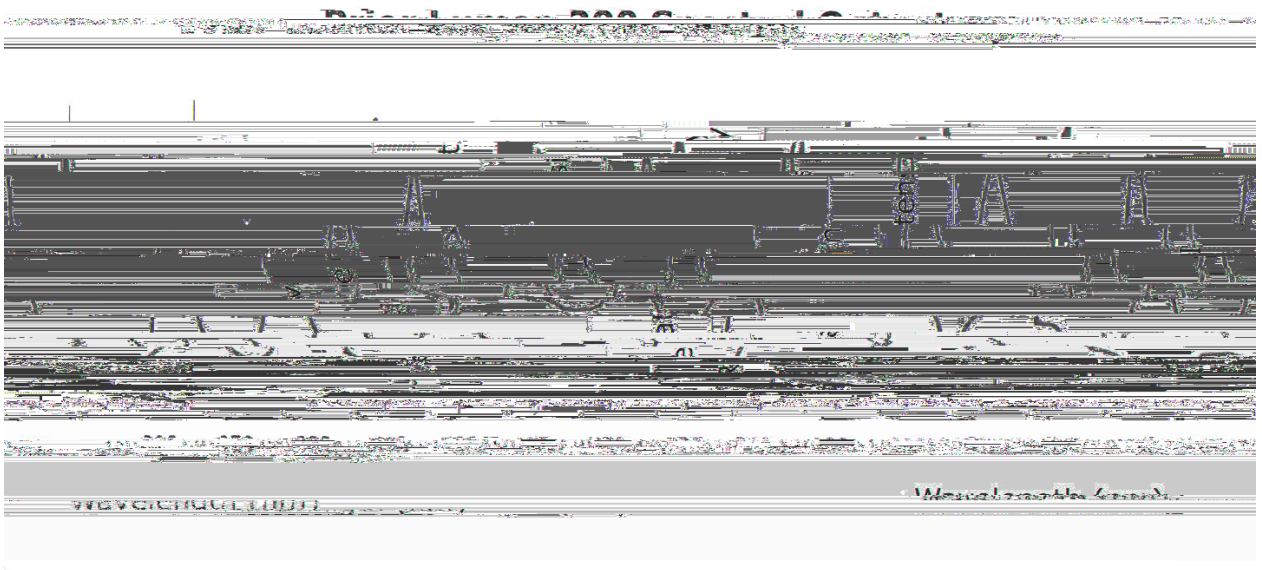
Fluorochrome	EX	EM	Use
Acridine Orange + DNA	500	526	Alternative
Alexa Fluor 488T"	498	520	Alternative
Azami Green	492	505	Alternative
BODIPY FL/pH7.2	505	512	Alternative
Calcein	494	517	Alternative
Calcium GreenTM -1	506	531	Alternative
Cy2TM	489	506	Alternative
DiO	484	502	Alternative
DyLight 488	492	517	Alternative
EGFP	488	507	Alternative
Emerald GFP	489	510	Alternative
FAM	492	518	Alte rnative
FITC	490	525	Alternative
Fluo-4			

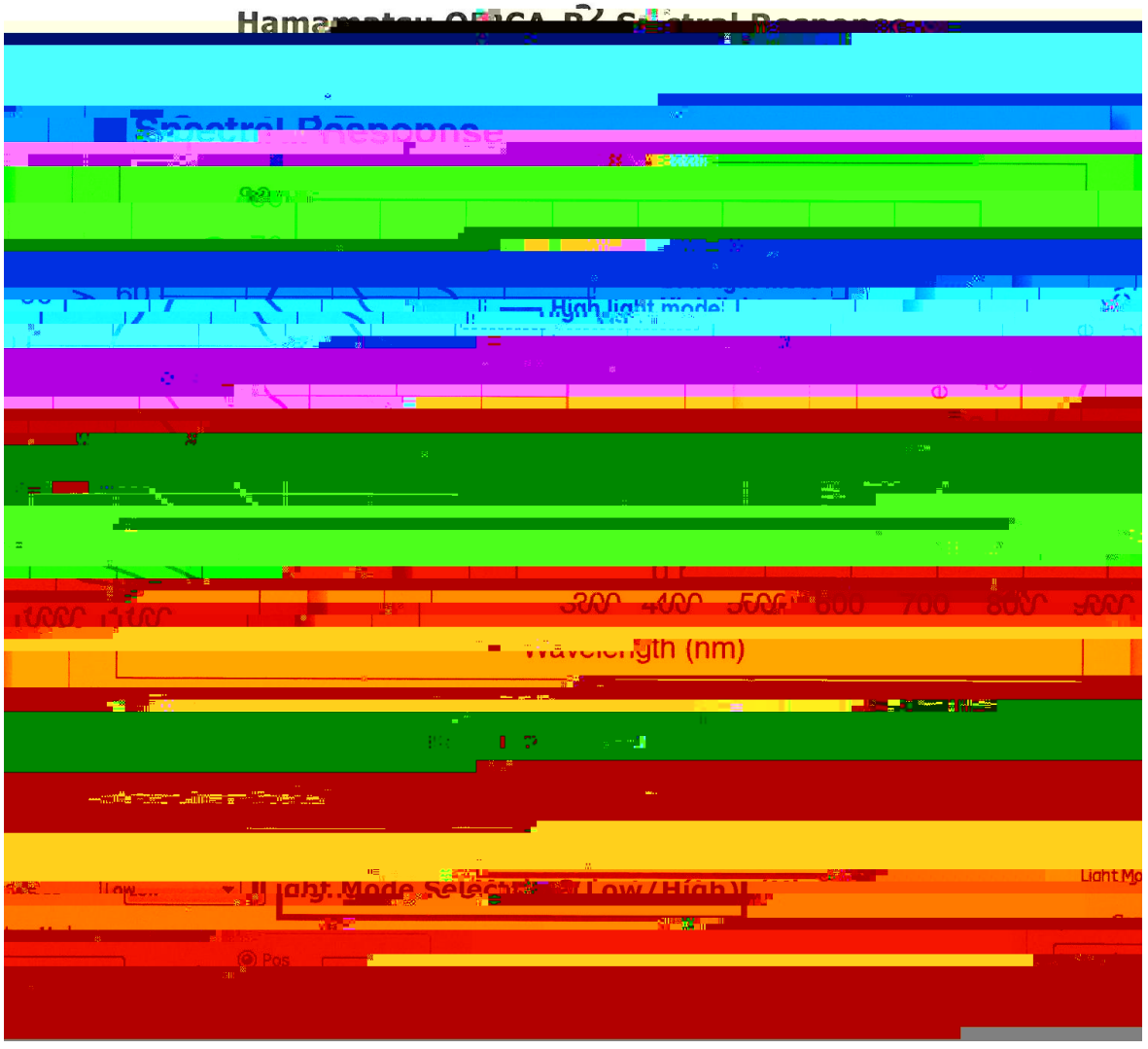
Position #5
49007 - ET - Cy7
Exciter ET710/75x
Beamsplitter T760LPXR
Emitter ET810/90m



-- ET710/75x -- ñ T7601pxr
-- ET810/90m

Fluorochrome	EX	EM	Use
Alexa Fluor 750TM	752		




Spectral Response
Wavelength (nm)
300
400
500
600
700
800
900
1000
1100
Pos