

#### St Andrews School of Medicine (SASoM) Systems Pathology Group



#### **Equipment Operation Procedure**

Document Number: SASoM/EQUIP/036.v2

Title: Use and Maintenance of the Olympus Double Header Microscope

Version: v2

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| SOP History |            |                   |
|-------------|------------|-------------------|
| Number      | Date       | Reason for Change |
| v1          | 01/01/2013 | Original          |
| V2          | 01/01/2018 | Update            |
|             |            |                   |
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|             |            |                   |
|             |            |                   |

# 1.0 Purpose -

The purpose of this SOP is to outline the principles of the routine use and maintenance of the Olympus Double Header Microscope in Laboratory 248 at the St Andrews School of Medicine (SASoM).

# 2.0 Scope -

This SOP applies to routine use and maintenance of the Olympus Double Header Microscope in within the SASoM.

# 3.0 Responsibilities -

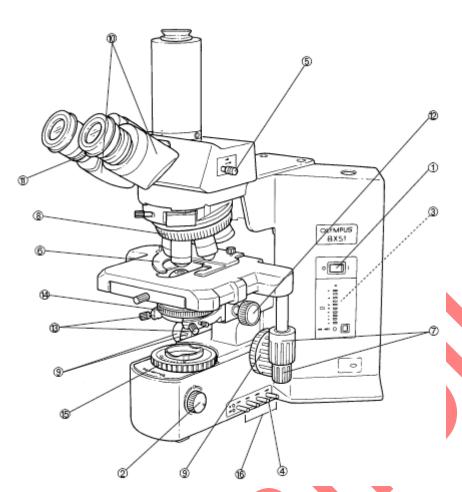
It is the responsibility of all users of the Olympus Double Header Microscope within the SASoM to comply with this SOP.



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#### 4.0 Procedure -



- 1 Main switch
- 2 Brightness adjustment knob
- 3 Voltage indicator LED
- 4 Day light Filter knob
- 5 Light path selector knob
- 6 Slide holder
- 7 X/Y-axis knob
- 8 Revolving nosepiece
- 9 Fine and coarse adjustment knob
- 10 Eye pieces
- 11 Diopter adjustment ring
- 12 Condenser height adjustment knob
- 13 Condenser centering screws
- 14 Aperture iris diaphragm ring
- 15 Field iris diaphragm ring
- 16 Filter knobs

Turn on the microscope by pressing the main switch to "I" (ON).

Turn the brightness adjustment knob (2) clockwise to increase the voltage and make illumination brighter.

Using the light path selector knob (5) select the light path.

Turn the coarse adjustment knob (9) to lower the stage.

Open the spring-loaded curved finger on the slide holder (6) and place specimen slide on the stage from the front.

After placing the side gently release the curved finger.

Using the X/Y axis knob (7) position the slide under the light path.

Select the 10X objective in the light path by rotating the revolving nosepiece (8).

Adjust the interpupillary distance by moving the eye pieces (10) so that the vision in the left and right fields of view coincide completely.



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Looking through the eyepiece without the diopter adjustment ring (11), rotate the coarse and fine adjustment knobs (9) to bring the specimen into focus.

Looking through the eyepiece with the diopter adjustment ring, turn only the diopter adjustment ring (11) to focus on the specimen.

Rotate the revolving nosepiece (8) to use the required objective and bring the specimen in focus by rotating the coarse and fine adjustment knobs (9).

Engage any required filters and adjust the brightness (2).

Start observation.

Turn off after use.

# 5.0 Personal protection -

Howie coat must be worn at all times.

# 6.0 Spillages -

Always clean up any spills immediately after use.

Only you know what you have spilt and are aware of that chemicals hazard.

Mop up spills with paper towels. Wash the site of spillage with water & detergent.

### 7.0 General maintenance

Clean surfaces of the apparatus with soft cloth and mild detergent.

To clean the lenses and other glass components, simply blow dirty away using a commercially available blower and wipe gently using a piece of cleaning paper (or clean gauze).

If a lens is stained with fingerprints or oil smudges, wipe it gauze slightly moistened with commercially available absolute alcohol.

Do not attempt to use organic solvents to clean the microscope components other than the glass components.

#### 8.0 Maintenance -

Microscope to be serviced once a year by a qualified engineer.



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# 9.0 Training -

All users have to be trained before using the Instrument by a designated person.

# 10.0 Related documents -

- 10.1 Equipment manual
- 10.2 Equipment Maintenance Log
- 10.3 Equipment Maintenance Information sheet
- 10.4 Risk assessments RA/GEN/016 & RA/MH/002

11.0 Approval and sign off -

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Name: Peter Mullen

Position: Research Fellow

Signature: Date:

**Management Approval:** 

Name: Mary Wilson

Position: Laboratory Manager

Signature: Date:

QA release by:

Name: Alex MacLellan
Position: QA Manager

Signature: Date: