



## **Dermatopathology User Guide**

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## Contents

<b>1.</b>	<b>Introduction .....</b>	<b>3</b>
<b>1.1</b>	<b>St John's Institute of Dermatology .....</b>	<b>3</b>
<b>1.2</b>	<b>St John's Dermatopathology Laboratory .....</b>	<b>3</b>
<b>2.</b>	<b>Clinical Advice and Interpretation.....</b>	<b>4</b>
<b>3.</b>	<b>Services Offered.....</b>	<b>5</b>
<b>4.</b>	<b>Sample Handling .....</b>	<b>6</b>
4.1	General .....	6
4.2	Mohs samples .....	6
4.3	Slow Mohs samples .....	6
<b>5.</b>	<b>Fixation / Health &amp; Safety .....</b>	<b>8</b>
<b>6.</b>	<b>Transport of Samples .....</b>	<b>9</b>
6.1	Procedure for Slow Mohs samples .....	9
6.2	Request Forms .....	9
<b>7.</b>	<b>Specimen Results .....</b>	<b>11</b>
7.1	Routine Specimens .....	11
7.2	Urgent Specimens.....	11



## 1. Introduction

### 1.1 St John's Institute of Dermatology

St. John's Institute of Dermatology is situated within Guy's & St. Thomas' Hospital Trust. It comprises a dedicated skin ward, numerous outpatient consulting rooms, a contact dermatitis clinic, a day treatment centre, skin theatres, and dedicated laboratories.

### 1.2 St John's Dermatopathology Laboratory

The laboratory is part of Synnovis Analytics which is a joint venture between Guy's and St Thomas' Hospitals NHS Foundation Trust, King's College Hospital NHS Foundation Trust and Synlab. The laboratory is a major referral centre for both general and specialist Dermatopathology and receives referral material internationally. The laboratory offers routine histology, immunocytochemistry and Mohs Micrographic Surgery service. The department also has an important role in both teaching and training of both medical and biomedical scientists.

Location:-

**Histopathology:** 2<sup>nd</sup> Floor, block 7, South Wing, St. Thomas' Hospital, Westminster Bridge Road, SE1 7EH.

**Mohs' Micrographic Surgery:** - O1 Outpatient's Village, Cancer Centre at Guy's, Great Maze Pond, London, SE1 9RT.

#### Dermatopathology Laboratory hours:

9am-5.15 pm Monday to Friday (excluding public holidays). The department does not offer an out of hours' service.

#### Useful Telephone Numbers:

Dermatopathology Laboratory	0207 188 6327
Mohs Laboratory - Guy's Hospital	0207 188 7188 ext.: 57383
Histopathology Fax No	0207 188 6382
Histopathology results & enquiries	0207188 6408

#### Key personnel:

Clinical Head of Department/ Dermatopathology

Dr. Eduardo Calonje 0207 188 6252

Laboratory Manager Dermatopathology

Dr. Guy Orchard 0207 188 8160

Quality Manager

Karen Boniface 0207 188 7188 ext. 54607



## 2. Clinical Advice and Interpretation

Clinical advice and interpretation is available from the following Consultants:

Dr. Eduardo Calonje	0207 1886252
Dr. Catherine Stefanato	0207 188 6261
Dr Blanca Martin	0207 188 6262
Dr William Rickaby	0207 188 6251



### 3. Services Offered

**Dermatopathology** - The majority of biopsies received are either small ellipses or punch biopsies, for histological examination. The laboratory offers a full range of special stains and immunocytochemistry.

All larger specimens that arrive from plastic surgery should be submitted to the laboratory in a container with a large amount of formalin (at least x10 the volume of formalin to the volume of tissue). In cases of some soft tissue samples, surgeons may attend the laboratory and give additional information on tissue orientation for dissection.

Please refer to the Synnovis website for more information.

**Mohs micrographic surgery** - The Mohs surgery is performed on Monday - Friday at the Cancer Centre at Guy's Hospital. The majority of Mohs cases involve the surgical removal of basal cell carcinomas and for these, tissue embedding, frozen section cutting, H&E staining and labelling is performed within the Mohs Laboratory in the Guy's Cancer Centre. Slide interpretation is performed within the Mohs laboratory's microscopy suite.

In addition, slow Mohs procedures involving paraffin processing may evaluate more invasive cancers such as malignant melanoma and dermatofibrosarcoma protuberans (DFSP). Slow Mohs procedures are also used for samples with a known infection risk. Samples for slow Mohs are couriered from the Guys' Cancer Centre to the St Thomas's Dermatopathology laboratory, where they are processed. Slide interpretation is done by dermatopathologists and surgeons via IT links/phone as required.

#### **Frozen Sections**

Frozen sections are performed for Mohs micrographic surgery only – details as above.

#### **Fresh Tissue**

Some tissues may be sent fresh to the laboratory. These include tissue for Mohs' micrographic surgery requiring rapid fixation and processing overnight. In addition, fresh tissue is sent for molecular analysis. These samples may require bisecting, sending half for formalin fixation and the other half to be sent to the Skin Tumour unit for PCR analysis. In such cases contact Christine Jones on STH ext. 81964 or bleep 1997.



## 4. Sample Handling

### 4.1 General

For any specimens to be accepted by the laboratory, all the details on the specimen pot and request form must match and be filled out correctly.

All specimens must be placed in sealed specimen bags with accompanying histology request forms. All specimens should be placed in a metal specimen container before transporting to the laboratory.

The sample pots must be clearly labelled with at least 2 patient identifiers, Name and DOB are ESSENTIAL. Tissue type or site must be indicated clearly. The laboratory will not accept or process specimens where this information is not given. The sender will be contacted in the event of insufficient information being supplied.

### 4.2 Mohs samples

Inked tissue should be received in the Mohs laboratory placed within a Petri dish on a filter paper accompanied with its tissue map on which each piece of tissue should be numbered and the epidermis indicated with a pencil line. The absence of such a pencil mark indicates the absence of an epidermis.

The map should include the patient's full name and NHS number. The surgical site and map of the resection area should have been added by the surgeon performing the Mohs surgery. This map will be presented to the surgeon with the H&E slides and will be re-used for the deeper layers of tissue where necessary. Surgeons may also choose to liaise directly with the Mohs' technician to advise them of specific details/ requirements of their case.

### 4.3 Slow Mohs samples

1. All tissue taken for Slow Mohs must be flagged to the laboratory staff in good time. The normal weekly rota of when Slow Mohs cases have been arranged needs to be forwarded to the Dermatopathology Staff as previously performed when the service was at St. Thomas'
2. Notification of a Slow Mohs specimen must be received 24 hours before the sample is to be sent to the laboratory. This is to ensure that laboratory staff will be available for the procedure, and to ensure that the laboratory staff are aware that a fresh sample will be sent and to fast track it appropriately.

NOTE: In the event that 24 hours' notice cannot be provided, the laboratory must be contacted by phone and a Senior Biomedical Scientist spoken to, to arrange for sample processing.

3. To avoid delays in processing, it is imperative that the Slow Mohs cases get performed as early in the day as possible to ensure that they can be processed in good time for reporting the following day. PLEASE ENSURE THAT ALL CASES ARE PREPARED AND SUBMITTED TO THE GUY'S CANCER HISTOLOGY LABORATORY BEFORE 2PM.
4. On removal of the tissue ensure that the pieces are laid flat on an individual piece of tissue wrap paper for each tissue piece. These are not cut down pieces but whole sheets. If the tissue is left for a minute it will dry to the tissue wrap paper in the position you have laid it. Please ensure the tissue is pushed as flat as possible before wrapping the tissue together in a tight fit fold.



5. All tissue taken for Slow Mohs needs to be placed into histological cassettes and not left in petri dishes. Ensure that the tissue pieces taken fit comfortably within the cassettes and that each cassette is marked using a permanent marker with the identification number that correlates with the Mohs patient's maps. Ensure the provided cassette lids are securely fastened to the top of the cassette before snapping the tissue securely inside the cassette. Place the cassettes into the normal neutral buffered formalin pots provided and transfer the pots to the Mohs histology laboratory. Ensure that the specimen pots are clearly labelled to reflect the patient details. Each pot can hold 2-3 cassettes each please do not squeeze any more than that in each one.
6. The CitySprint courier will then retrieve the tissues and transfer them to the Dermatopathology laboratory at St. Thomas' for processing
7. Tissue section for Slow Mohs will be prepared and stained for reporting by 11-12am the following morning.
8. Cases will then be discussed and reviewed as required and additional tissue taken for second rounds as needed.
9. The procedure for additional rounds is as highlighted in steps 1-7 above.
10. Any specific complications must be discussed with the laboratory staff in advance.

NB: Please note that we aim to ensure the tissues are protected in the transfer by placing them in histological cassettes at the Guy's site. In addition we hope that by placing the tissues in formalin at the Guy's site we will utilise the time taken to transfer the tissues by already starting the tissue fixation process.



## 5. Fixation / Health & Safety

Specimens should be placed into a pot containing 10% neutral buffered formalin (NBF). Pots containing NBF can be available from the laboratory (1st floor, Block 7, South Wing)

Formalin is covered by the Control of Substances Hazardous to Health Regulations 2002 (COSHH). Before formalin is used in the workplace risk assessments under COSHH must be carried out to ensure that people are not exposed to formaldehyde vapour. Formaldehyde has a workplace exposure limit of 2 parts per million and is a potential carcinogen. Always wear gloves. In the event of a spillage within the hospital please contact the laboratory on 86262. For small spills, spillage granules can be used.

Formalin spillage control granules should be available wherever formalin is used or stored, and staff trained in their use

Granules are available from <http://www.surgipath.com/productlist.aspx?c=5>.

Advice on the safe use of formalin may be obtained from the laboratory on extension 86262

Samples sent by post or courier may be transported as follows:

1. Ensure the cap of the primary container is securely fastened
2. Wrap the primary container in absorbent material and place into a sample bag
3. Place the sample bag into a large plastic bag or cardboard box and place into the transport box. Ensure the sample remains upright in the transport box
4. The surgery or clinic must keep a log of all samples sent for Histology. The patient's name, type of sample and the date and time the sample was sent the laboratory must be recorded, as well as the signature of the person who packaged and sent the sample.





## 6. Transport of Samples

Specimens are picked up by the laboratory staff at around 10am from:

- St. Johns' Outpatient Clinic and post room
- St. Thomas' North Wing Histopathology Department.

All specimens must be placed in sealed specimen bags with accompanying histology request forms. All specimens should be placed in a metal specimen container before transporting to the laboratory.

Urgent samples delivered via courier may arrive at any time throughout the day (within opening times) and taken to the laboratory on 2<sup>nd</sup> floor, South Wing, St. Thomas' Hospital.

Mohs samples are delivered directly to the Mohs laboratory by theatre staff. A courier must be booked for Slow Mohs samples (see procedure below).

### 6.1 Procedure for Slow Mohs samples

Arrangements for transferring tissue to St Thomas's MUST be made an hour before the tissue is expected to be ready for transfer. This should be done by first informing the staff in the Mohs histology laboratory within the DSLU in the Cancer Centre so that they can contact the Dermatopathology department main laboratory at St. Thomas' informing them that a case is about to be sent.

Then the nursing staff in the DSLU can arrange the collection of the tissue within the DSLU with the appointed courier company CitySprint, as follows:

1. Contact St Thomas' hospital central specimen reception on 81167.
2. Inform them that you will require a bike courier to transport a URGENT histology specimen.
3. Provide them with details of a person of contact and address of the collection and drop off points.
4. Provide them with the WBS number.
5. Ask them to forward you the reference number of the courier via email after they have booked it.

### 6.2 Request Forms

6.2.1 Requests should be made on EPR for samples from GSTT patients

6.2.2 Request Forms are available from the Dermatopathology laboratory upon request for private patient samples.

6.2.3 The request form MUST contain:

- i Full patient details
  - Patients full name
  - Date of birth/age
  - Hospital number
- ii Sender Details
  - Consultant
- iii Contact name/ number



- The requesting clinician must sign and provide contact telephone/bleep number (s)
- Destination for results and Speciality
- Date of specimen taken
- iv Funding details
  - Indication of whether specimen is NHS, private or contract funded.
- v Clinical details
  - All relevant clinical patient history, including any previous surgery and if possible previous histology report numbers.
- vi Specimen details
  - Specimen type, e.g. punch or ellipse etc.
- vii Number of specimens from same patient
- viii Specimen site

Failure to complete relevant details will lead to a delay in processing of specimens and subsequent issuing of results.

Note: indication of the infection risk status of the patient must also be given.



## **7. Specimen Results**

### **7.1 Routine Specimens**

The histology normal turn-around time from receipt of routine wet specimens in the laboratory and reports being issued is 3- 5 days. The turn- around time for referral cases is set at a maximum of three weeks or 15 working days.

### **7.2 Urgent Specimens**

Urgent specimens can be processed for reporting the same day provided they are adequately fixed and specimens are received for processing no later than 10.30 am on the morning concerned, the laboratory should be notified by phone prior to sending. Specimens if received unfixed can be rapidly fixed and processed overnight for reporting the following day. In all cases urgent specimens should be small specimens.