


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 UKAS MEDICAL 8682 Accredited to ISO 15189:2012	NHS Tayside	
	Issue No: 004 Issue date: 24 February 2021	
	Pathology Department Level 6 Ninewells Hospital Dundee DD1 9SY	Contact: Mr David Topping Tel: +44 (0)1382 740084 E-Mail: david.topping@nhs.scot Website: www.nhstayside.scot.nhs.uk
Testing performed by the Organisation at the locations specified below		

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details	Activity
Address Pathology Department Level 6 Ninewells Hospital Dundee DD1 9SY	Mr David Topping Routine Histopathology Special Stains Immunocytochemistry Frozen Section Histology Cytology -Diagnostic

Site activities performed away from the locations listed above:

Location details	Activity
Mortuary Department Level 5 Ninewells Hospital Dundee DD1 9SY	Mr Andrew Moultrie Mortuary services
Mohs clinic at Dermatology OP Ninewells Hospital Dundee DD1 9SY	Mr David Topping Preparation of slides
Thyroid Clinic (FNA) Ninewells Hospital Dundee DD1 9SY	Mr David Topping Preparation of slides



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DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>HUMAN BODY FLUIDS and TISSUES</p> <p>Air Dried Preparations CSF's, body fluids, CT Lung, Thyroid</p> <p>Wet fixed Preparations urines, Bronchial specimens, FNA's, Thyroid, body fluids</p> <p>Slides prepared in house as above</p>	<p><u>Diagnostic Cytology examinations to assist in clinical investigations</u></p> <p>Processing and Staining of Diagnostic Specimens for detection of abnormal cells</p> <p>Morphological assessment and interpretation/diagnosis</p>	<p>In House documented procedure & manufacturer's instructions using the following equipment</p> <p>Rapid Diff 11 Stain kit LCD018 LCD009 LCD007 LCD017 LCD025</p> <p>Leica Autostainer XL staining machine- PAP stain LCC018 Hologic T2000 processor LCC011 LCD008 LCD006 , LCD005, LCD017, LCD025, LCD007</p> <p>SOP PPP 062 Microscopy</p>



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<p>HUMAN BODY FLUIDS and TISSUES (cont'd)</p>	<p><u>Routine Histopathology examinations to assist in clinical investigations (cont'd)</u></p> <p>Frozen Section Histology examinations to assist in clinical investigations Detection of abnormal cells</p> <p><u>Special staining of Histopathology examinations to assist in detection of clinical abnormalities</u></p> <p>Acid and Neutral Mucins</p> <p>Acid Fast Tubercle Bacilli</p> <p>Amyloid</p> <p>Argentaffin Cells/Carcinoid Tumour</p> <p>Basement Membranes</p> <p>Calcium</p> <p>Connective tissue/Collagen/Muscle</p> <p>Connective tissue/ Collagen/Muscle/Fibrin</p>	<p>In House documented procedure & manufacturer's instructions using the following equipment</p> <p>In House manual methods and manufacturer's instructions Using the Thermo Shandon and Leica Cryostats and rapid H&E stain LHM008 Frozen Sections LHM027 Mohs micrographic Surgery Technique LHM030 Slide freezing Technique for Mohs Surgical Specimens LHM031 Relaxation cuts for Mohs Surgical Specimens LHM035 Procedure for High Risk Mohs Specimens LHI022 Procedures for Freezing Tissues for the Cryostat</p> <p>LHM038 Alcian Blue Stains</p> <p>LHM069 Ziehl Neelsen</p> <p>LHM039 Congo Red LHM071 Sirius Red</p> <p>LHM061 Singh</p> <p>LHM054 PACAMS</p> <p>LHM066 Von Kossa</p> <p>LHM051 Masson Trichrome LHM065 Van Gieson</p> <p>LHM050 Martius Scarlet Blue (MSB)</p>



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HUMAN BODY FLUIDS and TISSUES (cont'd)	<u>Special staining of Histopathology examinations to assist in detection of clinical abnormalities (cont'd)</u>	In House documented procedure & manufacturer's instructions using the following equipment
Tissue samples	Elastic Fibres	LHM 041Elastica Stains
	Fungi	LHM043 Grocott Gomori Methenamine Silver LHM055 Periodic Acid Schiff
	Glycogen/Neutral Mucins/Fungi	LHM055 Periodic Acid Schiff (PAS) and PAS alpha amylase
	Gram +ve & Gram -ve Organisms	LHM045 Gram
	Haemosiderin / Acid Mucins	LHM057 Perls LHM048 Hales Colloidal Iron
	Helicobacter/Micro-organisms / Chromaffin / Giardia	LHM044 Giemsa Modified for Helicobacter and Overnight for parasites and Chromaffin Granules
	Hepatitis B affected Cells/Copper associated protein	LHM053 Orcein
	Mast Cells	LHM064 Toluidine Blue – Low pH
	Melanin/Argentaffin/Chromaffin/some Lipofuscin	LHM061 Singh LHM060 Schmorls
	Mucin	LHM062 Southgates Mucicarmine
	Mycobacterium Leprae	LHM067 Wade-Fite
	pH1 Sulphated Acid Mucins/pH2.5 Acid Mucins	LHM038 Alcian Blue Stains (pH1 & pH2.5)
	Spirochetes	LHM 068 Warthin Starry



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<p>HUMAN BODY FLUIDS and TISSUES (cont'd)</p> <p>Tissue samples & Cell blocks</p>	<p><u>Immunocytochemistry of Histopathology examinations to assist in detection of clinical abnormalities</u></p> <p>Embryonic cells in normal tissues and germ tumours</p> <p>Smooth muscle cells, myoepithelial cells</p> <p>Anaplastic Large Cell Lymphoma's (ALCL's)</p> <p>Androgen Receptor positive cells</p> <p>B cells, follicular lymphomas</p> <p>Skin Neoplasms</p> <p>B cells, lymphomas</p> <p>B cells, plasma cells</p> <p>Complement C4d in allograft rejection</p> <p>Ovarian epithelial malignancies, seminal vesical carcinoma, anaplastic lymphoma</p> <p>Parafollicular cells in thyroid and medullary thyroid carcinomas</p>	<p>In house documented procedures & manufacturer's instructions</p> <p>Roche Ventana Benchmark system – and SOP series LHI 001 to LHI 063</p> <p>Using antibodies to and microscopy;-</p> <p>a-1-Fetoprotein</p> <p>Actin, smooth muscle</p> <p>ALKinase</p> <p>Androgen Receptor</p> <p>Bcl-2 (Dako)</p> <p>BAP1</p> <p>Bcl-6 Protein</p> <p>Bob-1 (C20</p> <p>C-4d</p> <p>CA125</p> <p>Calcitonin</p>



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HUMAN BODY FLUIDS and TISSUES (cont'd)	<u>Immunocytochemistry of Histopathology examinations to assist in detection of clinical abnormalities (cont'd)</u>	In house documented procedures & manufacturer's instructions cont
Tissue samples & Cell blocks (cont'd)	Smooth muscle cells	Roche Ventana Benchmark system – and SOP series LHI 001 to LHI 063
	Marker for mesotheliomas	Using antibodies to and microscopy;- Caldesmon, Calponin (cell marque)
	Mature B cells, follicular dendritic cells, CALLA	Calretinin CD10 (CALLA)
	Various - mast cells, stem cells, Cajal cells, melanocytes, basal cells (skin) and mammary duct epithelium	CD117 (c-kit)
	Plasma cells	CD138 (Syndecan-1)
	Granulocytes, Reed-Sternberg cells	CD15 (Leu-M1)
	Monocytes	CD163
	Langerhans cells	CD1a
	T cells	CD2(LFA-2) , CD3
	B cell	CD20 (CD20cy)
	Mature B cells, Follicular dendritic cell	CD21
	B cells, some T cell	CD23
	Reed-Sternberg cells, plasma cells	CD30 (Ki-1)
	Endothelial cells	CD31 Dako
	Myeloid cells	CD33



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HUMAN BODY FLUIDS and TISSUES (cont'd) Tissue samples & Cell blocks (cont'd)	<u>Immunocytochemistry of Histopathology examinations to assist in detection of clinical abnormalities</u> (cont'd) Erythrocytes, leukocytes, glomerular podocytes and follicular dendritic cells T cells (helper & mature) Platelets, megakaryocytes T and B cell Lymphoma's Leucocytes Mature T cells, T cell lymphomas Natural killer cells, neuroendocrine tissues Platelets, megakaryocytes, macrophages, endothelial cells Macrophages, monocytes, myeloid cells T cells. Natural killer cells, thymocytes B cells T cells Tumours including Ewings Sarcoma, & T cell lymphoma Intestinal epithelial cells, colorectal + other adenocarcinomas	In house documented procedures & manufacturer's instructions cont Roche Ventana Benchmark system – and SOP series LHI 001 to LHI 063 Using antibodies to and microscopy;- CD35 CD4 CD42b (GP1b) CD43 (Qbend10) CD45(LCA) CD5 CD56(N-CAM) CD57 CD61 CD68 (Routine PG M1) CD7 CD79a CD8 CD99 (MIC2) CDX2



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<p>HUMAN BODY FLUIDS and TISSUES (cont'd)</p> <p>Tissue samples & Cell blocks (cont'd)</p>	<p><u>Immunocytochemistry of Histopathology examinations to assist in detection of clinical abnormalities</u> (cont'd)</p> <p>CEA glycoproteins</p> <p>Tissues of neuroendocrine origin</p> <p>Basal cells, filamentous keratins form glandular to stratified squamous, prostate adenocarcinoma</p> <p>Expressed in variety tumours</p> <p>Pan cytokeratin (broad range)</p> <p>Epithelial cells</p> <p>Epithelial cells including ductal and glandular epithelia</p> <p>Adenocarcinomas, columnar epithelial cells</p> <p>Stratified squamous epithelium, basal cells, mesotheliomas</p> <p>Normal and neoplastic epithelia</p> <p>Pan cytokeratin (broad range)</p> <p>Epithelial cells</p> <p>Cytomegalovirus</p> <p>Lymphatic vessels</p> <p>Striated and smooth muscle cells</p>	<p>In house documented procedures & manufacturer's instructions cont</p> <p>Roche Ventana Benchmark system – and SOP series LHI 001 to LHI 063</p> <p>Using antibodies to and microscopy;-</p> <p>CEA</p> <p>Chromagranin A</p> <p>CK, HMW (34BE12)</p> <p>Cyclin D1</p> <p>Cytokeratin , MNF116</p> <p>Cytokeratin 14</p> <p>Cytokeratin 19</p> <p>Cytokeratin 20</p> <p>Cytokeratin 5/6</p> <p>Cytokeratin 7</p> <p>Cytokeratin AE1/AE3</p> <p>Cytokeratin, Cam 5.2</p> <p>Cytomegalovirus</p> <p>D2-40</p> <p>Desmin</p>



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Tissue samples & Cell blocks (cont'd)	Cytotoxic T Lymphocytes, Natural Killer cells	Roche Ventana Benchmark system – and SOP series LHI 001 to LHI 063
	Hairy cell leukaemia's	Using antibodies to and microscopy;- Granzyme B
	Placental trophoblasts	Hairy Cell Leukaemia hCG
	Breast carcinoma's expressing HER-2	HER – 2
	B cells, monocytes, macrophages, myeloid/erythroid precursors, activated T cells and some epithelial cells	HLA-DR
	Melanoma, melanocyte differentiation	HMB45
	Herpes Simplex Virus type I	HSV1
	Herpes Simplex Virus type II	HSV2
	Sex chord stromal tumours	Inhibinin, alpha
	Proliferating Cells	Ki67/p16-MIB-1(Ki67) Dako
	B cells and plasma cells	Kappa
	B cell follicles	Lambda
	Non Small Cell Lung Carcinoma's (NSCLC)	Lung ALK



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HUMAN BODY FLUIDS and TISSUES (cont'd)	<u>Immunocytochemistry of Histopathology examinations to assist in detection of clinical abnormalities</u> (cont'd)	In house documented procedures & manufacturer's instructions (cont'd)
Tissue samples & Cell blocks (cont'd)		Roche Ventana Benchmark system – and SOP series LHI 001 to LHI 063
		Using antibodies to and microscopy;-
	Melanoma marker	Melan A
	Granulocytes and monocytes	MPO
	Lympho-haemopoietic tumours	MUM1
	Rhabdomyosarcoma	MyoD1 and Myogenin
	Myoepithelial cells	Myosin Heavy Chain (Smooth muscle)
	Neuro, endocrine and neuro-endocrine tumours	NFP
	Peripheral nerves, neuroendocrine tumours	NSE
	B Cell lymphomas, germinal centre derived lymphomas	Oct 2
	Germ cell tumours, seminomas	OCT 3/4
	Various tumours	P16 Protein
	Breast, colon, lung and urothelial carcinoma's	P53 (DO-7)
	Prostate basal cells, proliferative cells, glandular epithelium	P63
	Non-small cell lung carcinoma differentiation	P63/CK7
	B Cells	PAX-5



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<p>HUMAN BODY FLUIDS and TISSUES (cont'd)</p> <p>Tissue samples & Cell blocks (cont'd)</p> <p>Slides prepared in house as above</p>	<p><u>Immunocytochemistry of Histopathology examinations to assist in detection of clinical abnormalities</u> (cont'd)</p> <p>Small cell differentiation in Lung cancer</p> <p>Cells of mesenchymal origin Epithelial cells and smooth muscle in fallopian tube.</p> <p>B Cells / Plasma Cells B Cell Follicles</p> <p>Wilms tumour</p> <p>Morphological assessment and interpretation/diagnosis</p>	<p>In house documented procedures & manufacturer's instructions (cont'd)</p> <p>Roche Ventana Benchmark system – and SOP series LHI 001 to LHI 063</p> <p>Using antibodies to and microscopy;-</p> <p>TTF-1/CK5/6</p> <p>Vimentin</p> <p>Kappa ISH Lambda ISH</p> <p>Wilm's Tumour (WT1)</p> <p>SOP PPP 062 Microscopy</p>
END		