


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>Accredited to ISO 15189:2012</p>	University College London Hospitals NHS Foundation Trust	
	Issue No: 002 Issue date: 21 September 2020	
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Testing performed at the above address only		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>HUMAN BODY TISSUE AND FLUIDS</p> <p>Fixed, fresh and frozen tissue; excisional and incisional biopsies and surgical resection specimens</p> <p>Formalin fixed tissues samples (as above)</p> <p>Processed tissue samples (as above) and from referral cases</p> <p>Paraffin waxed tissue samples (as above)</p>	<p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis</p>	<p>Macroscopic and Microscopic examination</p> <p>In house documented procedures in conjunction with equipment as specified below:</p> <p><u>Specimen dissection</u></p> <p>Manual methods using SOP CU01</p> <p><u>Tissue Processing</u></p> <p>SOP EQ06C in conjunction with manufacturers instructions using Sekura Tissue Tek VIP processor</p> <p><u>Decalcification</u></p> <p>DE06 in conjunction with manufacturers instructions using Sakura TDE30 decalcifier system.</p> <p><u>Tissue embedding</u></p> <p>SOPs SU06 & SU09 in conjunction with manufacturers instructions using embedding centres</p> <p><u>Tissue sectioning (microtomy)</u></p> <p>SOP SU08 using Leica & Sledge microtomes</p>



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	Macroscopic and Microscopic examination
Frozen Sections		In house documented procedures in conjunction with equipment as specified below: SU03 in conjunction with manufacturers instructions using Leica cryostat CM1950
FFPE slides prepared in house	Morphological assessment and interpretation / diagnosis	By microscopy with reference to: RE00X: Reporting Generic SOP RE00X1: The reporting of CSF samples RE00X2: The reporting of Biopsies RE00X3: The reporting of Peripheral Nerves RE00X4: The reporting of Muscle biopsies RE00X5: The reporting of intraoperative sampels RE00X6: The reporting of Surgical Biopsies, temporal lobes RE00X7: The reporting of Surgical Biopsies Skin RE00X8: The reporting of molecular pathology results RE02: The reporting of post mortems RE04: The reporting of Degenerative specimen
Slides from tissue section, CSF, ocular fluid & body fluids	<u>Routine staining</u> Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis Identification of basophilic and eosinophilic structures	Documented in-house procedures in conjunction with manufacturers instructions with reference to: SOPs SM01 and ST20 using Leica ST5020 Multistainer, Leica ST5030 Coverslipper and Haematoxylin and Eosin stains



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	<u>Special staining</u>	In house documented procedures in conjunction with equipment as specified below:
Slides from tissue section, CSF, ocular fluid & body fluids	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	Documented in-house procedures for manual hand staining with the following stains with reference to:
	Acid mucins	Alcian Blue (pH 2.5) (SOP ST02)
	Acid and neutral mucins	Alcian Blue/ Periodic Acid Schiff (SOP ST04)
	Amyloid	Congo Red (SOPST10)
	Nissl substance	Cresyl Fast Violet (SOP ST11)
		Formalin Pigment Removal (SOP ST12)
	Blood cells	Giemsa (SOP ST15A)
	Protozoa	Giemsa (SOP ST15B)
	Reticulin fibres	Gordon and Sweets (SOP ST16)
	Gram positive and negative bacteria	Gram Stain (SOP ST17)
	Fungal elements	Grocott (SOP ST19)
	Connective tissue	Haematoxylin Van Gieson (SOP ST22)
	Laforra bodies	Lugols Iodine (SOP ST25)
	Myelin and Nissl substance	Luxol Fast Blue (SOP ST26)
	Melanin	Masson's Fontana (SOP ST27)
	Removal of melanin	Melanin Bleach (SOP ST28)
	Elastic fibres and connective tissue	Miller's Elastic Van Gieson (SOP ST30)



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)</p>	<p><u>Special staining</u> (cont'd)</p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)</p> <p>Fibrin</p> <p>Glycogen</p> <p>Neutral mucins, glycogen, fungi</p> <p>Pituitary cells</p> <p>Ferric iron salts</p> <p>Lipofuscin, melanin etc</p> <p>Lipofuscin</p> <p>Various staining of rapid smears</p> <p>Calcium</p> <p>Leprosy bacilli</p> <p>Lipofuscin</p> <p>Acid Fast Bacilli</p>	<p>In house documented procedures in conjunction with equipment as specified below:</p> <p>Documented in-house procedures for manual hand staining with the following stains with reference to:</p> <p>Martius Scarlet Blue (SOP ST31)</p> <p>Periodic Acid Schiff – diastase (SOP ST33)</p> <p>Periodic Acid Schiff (SOPST34)</p> <p>Periodic Acid Schiff/Orange G (PAS/OG) (SOP ST36)</p> <p>Perl's Prussian Blue (SOP ST37)</p> <p>Schmorl Technique (SOP ST40)</p> <p>Sudan Black (SOP ST42)</p> <p>Toluidine Blue (SOP ST43)</p> <p>Von Kossa (SOP ST45)</p> <p>Wade Fite (SOP ST46)</p> <p>Ziehl Nielsen (Long) (SOP ST48)</p> <p>Ziehl Nielsen (SOP ST49)</p>



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	<u>Special staining</u> (cont'd)	In house documented procedures in conjunction with equipment as specified below:
Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	SOP SM02 for automated staining using Ventana Benchmark with the following stains :
	Acid mucins	Alcian Blue
	Acid and neutral mucins	Alcian Blue PAS
	Amyloid	Congo Red (not nerve)
	Elastic fibres and connective tissue	EVG
	Fungal elements	Grocott
	Neutral mucins, glycogen, fungi	PAS
	Glycogen removal	PASD
	Ferric iron salts	Perls
	Reticulin fibres	Retic
	<u>Immunohistochemistry:</u>	
Slides from tissue section, CSF, ocular fluid & body fluids	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis. Detection of:	SOP IM22 in conjunction with manufacturers instructions using Ventana Benchmark and Discovery Ultrawith the following antibodies:
	Amyloid protein	A4, beta amyloid-N
	Pituitary hormone adrenocorticotropin	ACTH
	Alpha smooth muscle actin	SMA
	Amyloid precursor protein	APP
	Classification of dementias	AT8 (TAU)



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)</p>	<p><u>Immunohistochemistry:</u> (cont'd)</p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis. Detection of:</p> <p>Astrocytoma identification</p> <p>BRAF Gene</p> <p>Complement</p> <p>Low molecular weight cytokeratin</p> <p>Muscular dystrophy lymphocytic marker</p> <p>CD10 antigen</p> <p>Cd117 antigen</p> <p>Oestrogen receptor antigen</p> <p>Plasma cells</p> <p>Mast cells</p> <p>B-cell antigen</p> <p>Tumour necrosis factor</p> <p>Endothelial cell expression</p> <p>Endothelial cell expression</p> <p>Helper T cells</p> <p>Neurononal cell adhesion molecules</p>	<p>In house documented procedures in conjunction with equipment as specified below:</p> <p>SOP IM22 in conjunction with manufacturers instructions using Ventana Benchmark and Discovery Ultrawith the following antibodies:</p> <p>ATRX</p> <p>Brachyury</p> <p>BRAF v600E</p> <p>CAM 5.2</p> <p>Caveolin 3</p> <p>CD10</p> <p>CD117</p> <p>Estrogen Receptor</p> <p>CD138 (paraffin) CD138 (cyto)</p> <p>CD1a</p> <p>CD20 (paraffin) CD20 (cyto) CD20 (nerve)</p> <p>CD30</p> <p>CD31</p> <p>CD34</p> <p>CD4 (paraffin) CD4 (cyto)</p> <p>CD56</p>



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)</p>	<p><u>Immunohistochemistry:</u> (cont'd)</p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis. Detection of:</p> <p>Macrophages</p> <p>B-cell subset</p> <p>Cytotoxic T cells</p> <p>CDX2 antigen</p> <p>Chromogranin granules in cells</p> <p>Cytokeratin 20 expression</p> <p>Cytokeratin 5 expression</p> <p>Cytokeratin 7 expression</p> <p>Cytomegalovirus</p> <p>Myofibrillar antigen</p> <p>Nuclear membrane marker</p> <p>Epithelial Membrane Antigen</p> <p>Follicle Stimulating Hormone</p> <p>Transcription Factor</p> <p>Gross cystic disease fluid protein 15</p>	<p>In house documented procedures in conjunction with equipment as specified below:</p> <p>SOP IM22 in conjunction with manufacturers instructions using Ventana Benchmark and Discovery Ultrawith the following antibodies:</p> <p>CD68 (paraffin) CD68 (cyto)</p> <p>CD79a (paraffin) CD79a (cyto)</p> <p>CD8 (paraffin) CD8 (nerve) CD8 (cyto)</p> <p>CDX2 (paraffin) CDX2 (cyto)</p> <p>Chromogranin</p> <p>CK 20 (paraffin) CK20 (cyto)</p> <p>CK 5</p> <p>CK 7 (paraffin) CK7 (cyto)</p> <p>Cytomegalovirus</p> <p>Desmin (paraffin)</p> <p>Emerin</p> <p>Epithelial Membrane Antigen</p> <p>Follicle Stimulating Hormone</p> <p>GATA3 (paraffin) GATA3 (cyto)</p> <p>GCDFP15</p>



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	<u>Immunohistochemistry:</u> (cont'd)	In house documented procedures in conjunction with equipment as specified below:
Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis. Detection of:	SOP IM22 in conjunction with manufacturers instructions using Ventana Benchmark and Discovery Ultrawith the following antibodies:
	Growth hormone	GH
	Glial Fibrillary Acidic Protein	Glial Fibrillary Acidic Protein (paraffin)
	Herpes Simplex Virus I antigen	Herpes Simplex Virus I
	Herpes Simplex Virus II antigen	Herpes Simplex Virus II
	Melanoma marker	HMB-45
	Human Chorionic Gonadotrophin	Human Chorionic Gonadotrophin
	Gliomas	IDH1
	Transmembrane glycoprotein	IC2
	Inhibin antigen	Inhibin- α
	Kappa light chains	Kappa
	Cell proliferation	Ki67 (paraffin) Ki67 (cyto)
	Leucocyte common antigen	LCA / CD45 (paraffin) LCA/ CD45 (cyto)
	Luteinising hormone antigen	LH
	Microtubule associated protein marker antigen	MAP2
	Melanoma	Melan-A
	Broad spectrum cytokeratin expression	MNF116 (paraffin) MNF 116 (cyto)
	Neuronal cell marker	Nestin



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)</p>	<p><u>Immunohistochemistry:</u> (cont'd)</p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis. Detection of:</p> <p>Neuronal nuclear protein</p> <p>Nerve fibres</p> <p>Oct 3/4 germ cell marker</p> <p>HIV</p> <p>-ve tumour suppressor gene</p> <p>Dementia classification</p> <p>Placental alkaline phosphatase antigen</p> <p>Progesterone receptor antigen</p> <p>Prolactin antigen</p> <p>Prostate specific antigen</p> <p>S-100 protein antigen</p> <p>Stat6 protein</p> <p>Phosphorylated neurofilaments</p> <p>Non-phosphorylated neurofilaments</p> <p>Myelin basic protein</p> <p>SV40 antigen</p>	<p>In house documented procedures in conjunction with equipment as specified below:</p> <p>SOP IM22 in conjunction with manufacturers instructions using Ventana Benchmark and Discovery Ultrawith the following antibodies:</p> <p>NeuN</p> <p>Neurofilament cocktail</p> <p>Oct 3/4</p> <p>P24</p> <p>P53</p> <p>P62</p> <p>Placental Alkaline Phosphatase (paraffin) Placental Alkaline Phosphatase (cyto)</p> <p>Progesterone Receptor</p> <p>Prolactin</p> <p>Prostate Specific Antigen</p> <p>S-100 Protein</p> <p>STAT6</p> <p>SMI 31- phosphorylated</p> <p>SMI-32 – non-phosphorylated</p> <p>SMI94 (MBP94) (paraffin) SMI94 (MBP94) (nerve)</p> <p>SV40 (paraffin) SV40 (cyto)</p>



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	<u>Immunohistochemistry:</u> (cont'd)	In house documented procedures in conjunction with equipment as specified below:
Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis. Detection of:	SOP IM22 in conjunction with manufacturers instructions using Ventana Benchmark and Discovery Ultrawith the following antibodies:
	Synaptophysin antigen	Synaptophysin (paraffin) Synaptophysin (cyto)
	Thyroglobulin antigen	Thyroglobulin
	Thyroid Stimulating Hormone	Thyroid Stimulating Hormone
	Toxoplasma	Toxoplasma
	TTF1 antigen	TTF1 (paraffin) TTF1 (cyto)
	Thyroid Stimulating Hormone	TSH
	Dementia classification	Ubiquitin
	Vimentin antigen	Vimentin
Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis:	SOP IM22a in conjunction with manufacturers instructions using Ventana Discovery Ultra with the following antibodies:
	Rare muscle disease	Alpha-synuclein
	Sarcolemmal membrane of skeletal muscle	Alpha-dystroglycan
	Sarcolemmal membrane	Alpha-sarcoglycan
	Sarcolemmal membrane, dystrophy marker	B-Dystrglycan
	Sarcolemmal membrane	Beta-Sarc
	Sarcolemmal membrane	Beta Spectrin



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)</p>	<p><u>Immunohistochemistry:</u> (cont'd)</p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis:</p> <p>Myofibrillary marker</p> <p>Myofibrillary marker</p> <p>Inflammaory marker, mature T-cell</p> <p>Inflammaory marker, cytotoxic T-cell</p> <p>Inflammaory marker, B-cell</p> <p>Inflammaory marker, platelet endothelial cell adhesion molecule</p> <p>Inflammaory marker, macrophages</p> <p>Sarcolemmal membrane, dystrophy marker</p> <p>Inflammatory marker, cell lysis</p> <p>Sarcolemmal membrane of skeletal muscle</p> <p>Sarcolemmal membrane, dystrophy marker</p> <p>Myofibrillar antigen</p>	<p>In house documented procedures in conjunction with equipment as specified below:</p> <p>SOP IM22a in conjunction with manufacturers instructions using Ventana Discovery Ultra with the following antibodies:</p> <p>BAG3</p> <p>Calpain</p> <p>CD3 (muscle)</p> <p>CD8 (muscle)</p> <p>CD20 (muscle)</p> <p>CD31 (muscle)</p> <p>CD68 (muscle)</p> <p>Caveolin 3</p> <p>C5B9 (MAC) (muscle)</p> <p>Spectrin (paraffin) Spectrin (muscle)</p> <p>Delta-sarcoglycan</p> <p>Desmin</p>



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	<u>Immunohistochemistry:</u> (cont'd)	In house documented procedures in conjunction with equipment as specified below:
Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis:	SOP IM22a in conjunction with manufacturers instructions using Ventana Discovery Ultra with the following antibodies:
	Sarcolemmal membrane of skeletal muscle	Dysferlin (Hamlet 1)
	Sarcolemmal membrane of skeletal muscle	Dystrophin 1
	Sarcolemmal membrane of skeletal muscle	Dystrophin 2
	Sarcolemmal membrane of skeletal muscle	Dystrophin 3
	Myofibrillar marker	Filamin C
	Human leucocyte antigen	HLA I
	Human leucocyte antigen	HLA II
	Sarcolemmal membrane, dystrophy marker	Gamma-Sarc
	Laminin Alpha 2	Laminin Alpha 2 4H8 Laminin Alpha 2 5H2
	Laminin Alpha 5	Laminin Alpha 5
	Laminin Beta 1	Laminin Beta 1
	Laminin Gamma 1	Laminin Gamma 1
	Inflammatory marker, lysosomes	Lamp-2
	Muscle fibre sub-typing	Myosin heavy chain-fast
	Immature muscle fibres	Myosin heavy chain (neonatal)
	Muscle fibre sub-typing	Myosin heavy chain-slow



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Slides from tissue section, CSF, ocular fluid & body fluids (cont'd)</p>	<p><u>Immunohistochemistry:</u> (cont'd)</p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis:</p> <p>Muscle fibre sub-typing</p> <p>Mitochondrial marker, Complex IV enzyme</p> <p>Myofibrillar antigen</p> <p>Nerves and muscle fibres (regeneration)</p> <p>Mitochondrial marker, outer membrane</p> <p>Sarcolemmal membrane of skeletal muscle</p> <p>Myofibrillar marker</p> <p>Sarcoplasmic of type 2 muscle fibres</p> <p>Sarcoplasmic of type 1 muscle fibres</p> <p>Inflammatory Myopathies</p> <p>Mitochondrial marker, outer membrane</p>	<p>In house documented procedures in conjunction with equipment as specified below:</p> <p>SOP IM22a in conjunction with manufacturers instructions using Ventana Discovery Ultra with the following antibodies:</p> <p>Myosin heavy chain developmental</p> <p>MTCO1</p> <p>Myotilin</p> <p>NCAM</p> <p>NDUFB8 Complex I</p> <p>nNOS</p> <p>p62 (muscle)</p> <p>Serca-1</p> <p>Serca-2</p> <p>Utrophin</p> <p>TOMM20</p>
<p>Sections from tissue CSF, ocular fluid & body fluids</p>	<p>Detection of β-Amyloid, α-Synuclein, and PRP Proteins (prion proteins)</p>	<p>SOP IM19 in conjunction with manufacturer instructions using Leica Immunostainer Bond Max with the following antibodies: KG69, ICSM35 & 12F10</p>



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Cerebrospinal fluid Ocular fluid and body fluids</p> <p>Fixed preparations</p> <p>Sections from tissue CSF, ocular fluid & body fluids</p>	<p><u>Non-Gynaecological Cytology</u></p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis</p> <p><u>Staining of slides for analysis</u></p> <p>Basic cellular components</p> <p><u>Molecular Biology</u></p> <p>DNA Profiling for detection of abnormal sequences for disease conditions</p>	<p><u>Preparation of slides for staining</u></p> <p>Documented in-house procedures CY03A, CY04 and CY05 in conjunction with manufacturers instructions using Shandon Cytospin 4</p> <p>Documented in-house procedures using Leica ST5020 Multistainer and ST503coverslipper with reference to:</p> <p>Giemsa (SOP CY07)</p> <p>PAP (SOP CY06)</p> <p>Documented in-house methods for DNA manufacture, purification and detection using techniques and kits in combination with manufacturers instructions:</p> <p><u>DNA Extraction</u></p> <p>SOP PC05 in conjunction with manufacturers instructions using Eppendorf centrifuge and Thermomixer. NanoDrop Spectrophotometer from Labtech International</p> <p><u>RNA Extraction</u></p> <p>SOP PC05 in conjunction with manufacturers instructions using Eppendorf centrifuge and Thermomixer. NanoDrop Spectrophotometer from Labtech International</p> <p>RE00X8: The reporting of molecular pathology results</p>



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Sections from tissue CSF, ocular fluid & body fluids</p>	<p><u>Molecular Biology</u></p> <p>DNA Profiling for detection of abnormal sequences for disease conditions</p> <p>Identification of IDH 1 & 2 point mutation</p> <p>Detection of semi-quantitative methylation rate on CpG island of MGMT</p> <p>Identification of copy number variation on chromosome 1p, 19q, PTEN & EGFR</p> <p>Identification of TERT mutations</p> <p>Identification of H3 mutations</p> <p>Identification of EGFR viii mutation</p>	<p>Documented in-house methods for DNA manufacture, purification and detection using techniques and kits in combination with manufacturers instructions:</p> <p>SOP PC04 in conjunction with manufacturers instructions using Applied Biosystems Thermocycler verity by PCR and Sanger sequencing</p> <p>SOP PC06 in conjunction with manufacturers instructions using Eppendorf Thermomixer and Life Technologies 7900 HT Fast Real – time PCR system by high resolution melting methylation assay</p> <p>SOP PC02 in conjunction with manufacturers instructions for using QS5 Real – time PCR system using copy number assay</p> <p>SOP PC18 – TERT promoter mutations in gliomas detected by sanger sequencing performed by Eurofins</p> <p>SOP PC17 Detetction of histone H3 mutations in adult glioblastoma detected by sanger sequencing performed by Eurofins</p> <p>SOP PC011 in conjunction with manufacturers instructions using Applied Biosystems Thermocycler verity and QS5 Real – time PCR system</p>



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NHS Foundation Trust**

Issue No: 002 Issue date: 21 September 2020

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
HUMAN BODY TISSUE AND FLUIDS (cont'd) Sections from tissue CSF, ocular fluid & body fluids	<u>Molecular Biology</u> DNA Profiling for detection of abnormal sequences for disease conditions Identification of BRAF fusion mutations Identification of BRAF V600E point mutation Analysis of loss of homozygosity on CDKN2A and CDKN2B in gliomas Illumina 850k methylation arrays	Documented in-house methods for DNA manufacture, purification and detection using techniques and kits in combination with manufacturers instructions: SOP PC09 in conjunction with manufacturers instructions using Applied Biosystems Thermocycler verity and QS5 Real – time PCR system SOP PC08 in conjunction with manufacturers instructions for using Applied Biosystems Thermocycler verity by PCR and Sanger sequencing SOP PC20 Analysis of loss of homozygosity on CDKN2A and CDKN2B in gliomas using QS5 for quantitative real time PCR SOP PC15 and PC16: DNA preparation for Illumina arrays
Slide preparations of frozen tissue sections of adult / paediatric muscle as stated	<u>Staining of slides for analysis</u>	Documented in-house procedures by manual staining with reference to:
Adult	Identification of general morphology including of basophilic and eosinophilic structures	Haematoxylin and Eosin (SOP MU12)
Adult & Paediatric	Identification of general morphology highlighting nemaline rods, cytoplasmic and mitochondrial abnormalities	Modified Gomori Trichrome (SOP MU13)
Adult	PAS +ve substances	Periodic Acid Schiff (SOP MU14)
Paediatric	PAS +ve substances	Diastase Periodic Acid Schiff (SOP MU14a)



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HUMAN BODY TISSUE AND FLUIDS (cont'd)		
Slide preparations of frozen tissue sections of adult / paediatric muscle as stated		Documented in-house procedures by manual staining with reference to:
	<u>Staining of slides for analysis</u>	
Adult	Lipids	Sudan Black (SOP MU15)
Adult & Paediatric	Simple lipids	Oil Red O (SOP MU18)
	<u>Histochemistry</u>	
	Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis	
Adult & Paediatric	Nicotinamide Adenine Dinucleotide	SOP MU04
Adult	Succinic Dehydrogenase	SOP MU05
Adult & Paediatric	Cytochrome Oxidase	SOP MU06
Adult & Paediatric	Acid phosphatase	SOP MU08
Adult & Paediatric	Adenylate deaminase	SOP MU09
Adult	Adenosine triphosphate	SOP MU10
Adult & Paediatric	Combined cytochrome oxidase and succinic dehydrogenase	SOP MU19
Adult and paediatric	Phosphorylase	SOP MU07
Paediatric	Phosphofructokinase	SOP DL03
Paediatric	Menadione-linked-alpha-glycerophosphate dehydrogenase without substrate	SOP DL04



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Slide preparations of frozen tissue sections of adult and paediatric muscle</p>	<p><u>Fluorescent markers</u></p> <p>Alkaline Phosphatase</p> <p>Markers for Collagenopathy (muscular dystrophy/myopathy)</p> <p>Marker for Dystroglycanopathy (muscular dystrophy)</p> <p>Reference protein for the a-dystroglycan</p> <p>Marker of actin filaments</p> <p><u>Electron Microscopy</u></p>	<p>Documented in-house procedures by manual staining with reference to:</p> <p>SOP DL30</p> <p>Collagen VI / Perlecan. SOP DL11</p> <p>A-Dystroglycan. SOP DL09</p> <p>B-dystroglycan. SOP DL09</p> <p>Phalloidin – SOP DL10</p>
<p>Peripheral nerve biopsies</p>	<p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis</p>	<p><u>Processing & Embedding</u></p> <p>Documented in-house procedure SOP PE04 paraffin wax embedding</p> <p>Documented in-house procedure SOP PE05 for resin embedding</p> <p>Documented in-house procedure SOP PE06 for Teasing of nerve fibres for microscopic examination</p> <p><u>Semi-thin Sectioning</u> SOP EM05 in conjunction with manufacturers instructions using Ultramicrotome (Ultra cut E) Reichert-Jung</p> <p><u>Ultra-thin Sectioning using</u> SOP EM05</p>



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<p>HUMAN BODY TISSUE AND FLUIDS (cont'd)</p> <p>Human tissues – muscle, skin, tumour and post mortem tissue</p> <p>Semi-thin resin sections mounted on glass slides</p> <p>Semi-thin resin sections mounted on glass slides</p> <p>Ultra-thin (~70nm) sections on support grids</p>	<p><u>Electron Microscopy</u></p> <p>Examination of tissues to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis</p> <p>To differentiate between myelin, collagen and elastin. Demonstration of tubercle bacilli.</p> <p>Tissue components and metachromatic tissue elements</p>	<p>Documented in-house procedures for staining of material using the following stains with reference to:</p> <p>Methylene Blue/ Azure A/ Basic fuchsin (SOP EM07)</p> <p>Toluidine Blue (SOP EM08)</p> <p>Uranyl acetate/ Lead acetate (SOP EM09)</p>
END		