

Director of Laboratories: Dr L Gaunt

REQUEST FOR TUMOUR DNA TESTING

PLEASE COMPLETE SECTION 1-3 AND EITHER FORWARD TO THE PATHOLOGY LABORATORY HOLDING THE SAMPLE, OR IF YOU REQUIRE THE GENOMIC DIAGNOSTICS LABORATORY TO OBTAIN THE SPECIMEN PLEASE FORWARD TO mft.Pharmaco.GeneticsRequests@nhs.net. SECTIONS 4-5 TO BE COMPLETED BY THE PATHOLOGY LABORATORY.

<p>1. PATIENT DETAILS (affix a printed label if available)</p> <p>Forename(s):</p> <p>Surname:</p> <p>DoB: Sex: M/F</p> <p>NHS No: Hosp No:</p> <p>Address:</p> <p>Postcode:</p>	<p>2. REFERRER DETAILS</p> <p>Consultant:</p> <p>Date of request:</p> <p>Address for reporting/invoicing:</p> <p>Tel:</p> <p>¹Email 1:</p> <p>Email 2:</p> <p>¹Reports will be sent to multiple emails if required</p> <p>Report by: Email <input type="checkbox"/> (account registration for secure email required - contact laboratory for further information)</p>
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3. TEST REQUEST (please select options by placing a tick or cross next to each test required)
 1. Please note that all genes are tested and reported and this test may identify pathogenic germline variant. 2. NGS panel testing also available for research or clinical trial support; 3. If a hypermethylation test in addition to another test is required please send a **further 4 x 5uM** sections; 4. See overleaf for sample requirements.

Test/Gene	Required	Test/Gene	Required
EGFR mutation testing (NSCLC)	<input type="checkbox"/>	NGS somatic cancer panel testing ^{1,2} – please circle any genes where analysis is a priority (AKT1; ALK; AR; BRAF; CTNNB1; DDR2; EGFR; ERBB2; FGFR3; GNA11; GNAQ; IDH1; IDH2; KIT; KRAS; MAP2K1; MET; NRAS; PDGFRA; PIK3CA; PTEN; RET; STK11; TP53)	<input type="checkbox"/>
RAS/BRAF/PIK3CA mutation testing (CRC)	<input type="checkbox"/>		
BRAF codon 600 mutation testing	<input type="checkbox"/>		
NRAS mutation testing (Melanoma)	<input type="checkbox"/>		
KIT mutation screen (Melanoma)	<input type="checkbox"/>	MSI testing	<input type="checkbox"/>
KIT/PDGFR mutation screen (GIST)	<input type="checkbox"/>	MLH1 ³ promoter hypermethylation	<input type="checkbox"/>
FFPE BRCA1/2 mutation screen - treatment focussed in ovarian cancer ¹	<input type="checkbox"/>	MGMT ³ promoter hypermethylation	<input type="checkbox"/>
FFPE Somatic Colorectal Cancer NGS screen ¹ (APC, BMPR1A, CDH1, CTNNB1, MSH6, SMAD4, MLH1, MSH2, MUTYH, POLD1, POLE, PTEN, STK11)	<input type="checkbox"/>	ALK re-arrangement by FISH testing(NSCLC) ⁴	<input type="checkbox"/>
		ROS1 re-arrangement FISH testing (NSCLC) ⁴	<input type="checkbox"/>

<p>4. PATHOLOGY AND CLINICAL DETAILS</p> <p>Tumour type/organ of origin</p> <p>_____</p> <p>PLEASE INCLUDE A COPY OF THE PATHOLOGY REPORT</p> <p>Pathologist:</p> <p>Hospital/Trust:</p> <p>Pathology block/sample no:</p> <p>CLINICAL URGENCY – EGFR referrals (see overleaf for TAT)</p> <p>Standard <input type="checkbox"/></p> <p>Urgent* (treatment) <input type="checkbox"/></p> <p><i>*not to exceed 10% of requests</i></p>	<p>5. PATHOLOGY</p> <p>Date sections sent to Genetics lab:</p> <p>Please circle the approximate % nuclei that are neoplastic in the sample sent for analysis (this information is important and is used to ensure the test carried out is appropriately sensitive)</p> <p><10%* 10-20%* 20-30%* >30%</p> <p><i>*If sample is suitable for macrodissection, please include a H&E stained section with area(s) of tumour clearly circled and an estimate of % nuclei that are neoplastic within marked area _____%</i></p> <p>For NSCLC and Melanoma only</p> <table border="1" style="display: inline-table; margin-right: 20px;"> <tr> <th>Lung cancer</th> <th>Information</th> </tr> <tr> <td>Confirmed NSCLC</td> <td>Yes/No</td> </tr> <tr> <td>TTF1 +ve</td> <td>Yes/No</td> </tr> <tr> <td>Sample type</td> <td></td> </tr> </table> <table border="1" style="display: inline-table;"> <tr> <th>Melanoma</th> <th>Information</th> </tr> <tr> <td>Stage of disease</td> <td>1/2/3/4</td> </tr> </table>	Lung cancer	Information	Confirmed NSCLC	Yes/No	TTF1 +ve	Yes/No	Sample type		Melanoma	Information	Stage of disease	1/2/3/4
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Confirmed NSCLC	Yes/No												
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INFORMATION FOR PATHOLOGY LAB (ALL SAMPLES)

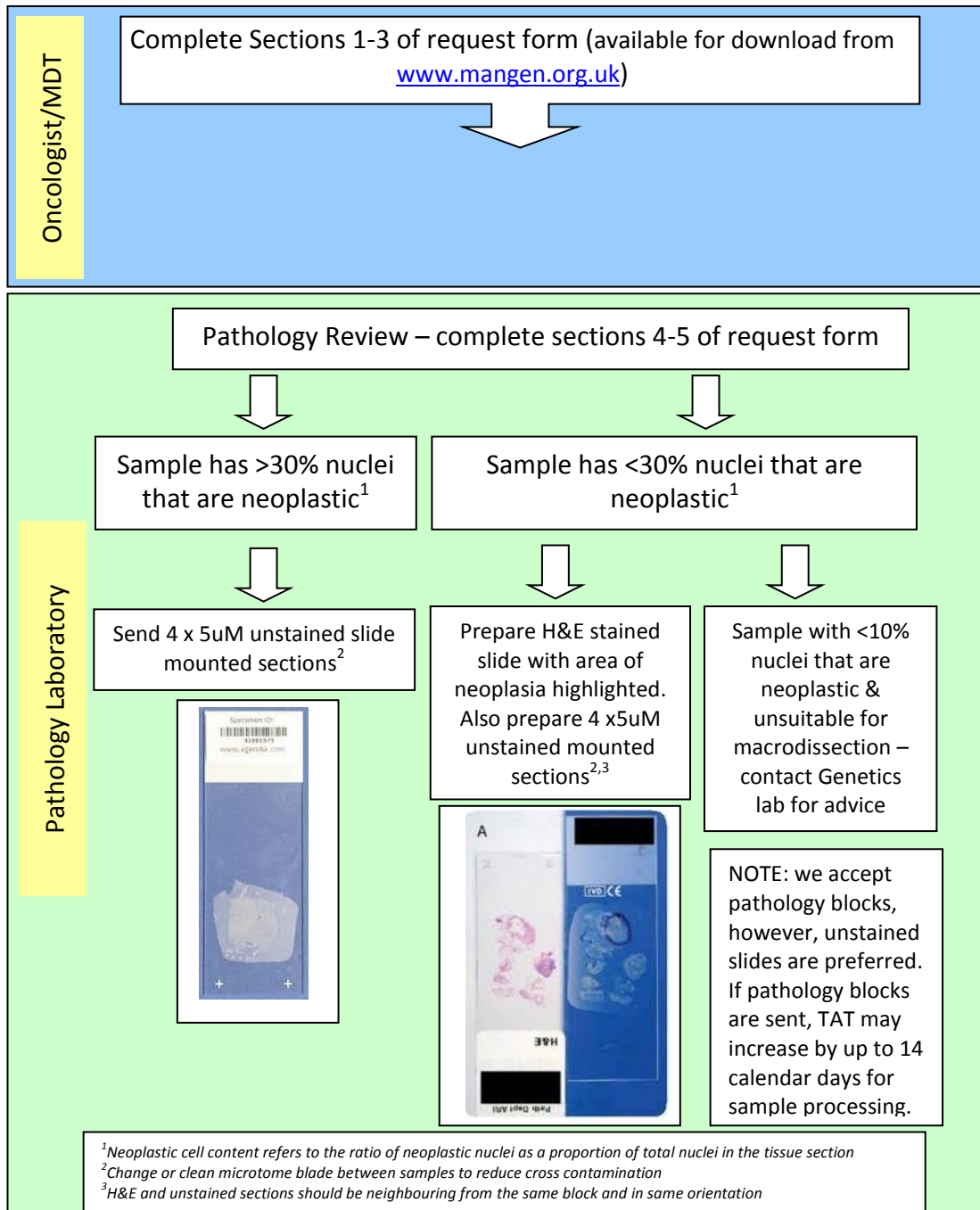
- We require a minimum of 4x5uM unstained slide mounted sections or rolls from a pathology block.
- We accept pathology blocks, but unstained slides are preferred (if pathology blocks are sent, TAT may increase by up to 14 calendar days for sample processing).
- If insufficient tissue available please contact the laboratory for advice.
- **If % nuclei that are neoplastic is less <30% and sample suitable for macrodissection please also send a H&E stained slide with the area of tumour ringed and an estimate of % nuclei that are neoplastic within the marked area.**
- Sections should be cut under conditions that prevent cross contamination from other specimens.
- Slides carrying sections should be sent in a clean slide carrier. **Slides must be clearly marked with a patient or sample identifier** that matches details on this form or accompanying Pathology report. In addition please clearly label the container with **at least 2 patient identifiers.**
- Samples should be despatched as soon as possible as the patient's treatment is dependent on the results of Genomic analysis.
- Please send samples to the address at the letterhead above.

ALK/ROS1 RE-ARRANGEMENT FISH TEST

- Prepare 4 unstained sections (4uM thick) floated on the surface of a purified water bath set at 40°C (+/-2°C).
- Mount on positively charged slides and allowed to air-dry
- Also include 1 H&E slide with regions enriched for neoplastic cells marked by a Pathologist along with an estimate of neoplastic cell content in the marked area(s)

EGFR Turn-around times (TAT): standard TAT is 14 calendar days, but URGENT cases can be reported within 7 calendar days.

GUIDANCE FOR SAMPLE PREPARATION



In case of queries contact Helene Schlecht (Helene.Schlecht@mft.nhs.uk), George Burghel (George.burghel@mft.nhs.uk)
 Tel: 0161 276 3265 or Andrew Wallace (Andrew.wallace@mft.nhs.uk) Tel: 0161 701 4919