NHS
Manchester University
NHS Foundation Trust

Genomic Diagnostics Laboratory
Manchester Centre for Genomic Medicine,
(6th Floor) St. Mary's Hospital
Oxford Road, Manchester M13 9WL
Tel: 0161 276 3265/6122
Email: mft.Pharmaco.GeneticsRequests@nhs.net
www.mangen.co.uk

Director of Laboratories: Dr L Gaunt

REQUEST FOR CNS 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. SECTION 4 IS INTENDED TO BE COMPLETED BY THE PATHOLOGY LABORATORY.

1. PATIENT DETAILS *(affix a printed label if available)*

Sex: M☐ F☐

Forename(s):	
Surname:	
DoB:	
NHS No:	
Hosp No:	
Address:	
Postcode:	

2. REFERRER DETAILS

Consultant:	
Date of request:	
Address for reporting/ invoicing:	
Tel:	
Email[1]	

[1]*Reports will be sent to multiple emails if required (requires account registration for secure email - contact laboratory for further information)*

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 variants. 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. For KIAA1549:BRAF fusion, C110rf95:RELA fusion, and EGFRvIII transcript testing please send 4x 5µM rolls 5. See overleaf for sample requirements.*

	Required
hTERT promoter mutations	
MGMT[3] promoter hypermethylation	
1p19q FISH[5]	
BRAF codon 600 mutation testing	
KIAA1549:BRAF fusion[4]	
C11orf95:RELA fusion[4]	
EGFRvIII transcript[4]	
Meningioma/schwannoma panel[1] (NF2, SMARCB1, SMARCE1, SMARCA4, LZTR1)	
NGS Glioma sub-panel[1,2] – please circle any genes where analysis is a priority (AKT1; ALK; BRAF; CTNNB1; ERBB2; FGFR3; H3F3A; IDH1; IDH2; KIT; KRAS; MAP2K1; MET; NRAS; PIK3CA; PTEN; TERT; TP53)	
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, H3F3A, TERT)	

4. PATHOLOGY AND CLINICAL DETAILS

Tumour Type/origin of organ:	
Pathologist:	
Hospital/Trust:	
Pathology Block/Sample No:	
Date sections sent to Genetics lab:	

Please indicate the approximate tumour cell content of the sample sent for analysis:
(this information is important and is used to ensure the test carried out is appropriately sensitive)

<10%*☐ 10-20%*☐ 20-30%*☐ >30%☐

**If sample is suitable for macrodissection, please include an H&E stained section with area(s) of tumour clearly circled and an estimate of neoplastic cell content within marked area _____%*

INFORMATION FOR PATHOLOGY LAB (ALL SAMPLES)

- We require a minimum of 4x5uM unstained slide mounted sections or rolls from a pathology block. This excludes KIAA1549:BRAF fusion, C110rf95:RELA fusion, and EGFRvIII transcript testing where we require a minimum of 4 x 5µM rolls or pathology blocks.
- We accept pathology blocks, but unstained slides are preferred (if pathology blocks are sent, TAT may increase by up to 7 calendar days for sample processing).
- If insufficient tissue available please contact the laboratory for advice.
- **If neoplastic cell content is <30% and sample suitable for macrodissection please also send a H&E stained slide with the area of tumour ringed and an estimate of neoplastic cell content 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.

FISH TEST

- Prepare 4 unstained sections (3uM 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)

GUIDANCE FOR SAMPLE PREPARATION

Oncologist/MDT

Complete Sections 1-4 of request form (available for download from www.mangen.org.uk)

Securely send test request form to Pathology laboratory holding the specimen

Pathology Laboratory

Pathology Review – complete section 5 of request form

Sample has >30% neoplastic cell content[1]

Sample has <30% neoplastic cell content[1]

Send 4 x 5uM unstained slide mounted sections[2]

Prepare H&E stained slide with area of neoplasia highlighted. Also prepare 4 x5uM unstained mounted sections[2,3]

Sample with <10% neoplastic cell content & unsuitable for macrodissection – contact Genetics lab for advice

NOTE: we accept pathology blocks, however, unstained slides are preferred. If pathology blocks are sent, TAT may increase by up to 14 calendar days for sample processing.

[1] *Neoplastic cell content refers to the ratio of neoplastic nuclei as a proportion of total nuclei in the tissue section*
[2] *Change or clean microtome blade between samples to reduce cross contamination*
[3] *H&E and unstained sections should be neighbouring from block and in same orientation*

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