**UW Medicine - Pathology**

400-11-01-22

**Sample Handling and Send Out for Tech-Only Service of Signature Genomic Laboratories**

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| Adopted Date: 01/01/2013Review Date: 03/26/2013Revision Date: 04/03/2013 |

PURPOSE

### The procedure is constructed to handle and send out clinical samples for array CGH+SNP testing with Tech-only service of Signature Genomic Laboratories that the technical component of this microarray test will be performed by Signature Genomic Laboratories (SGL) and the test interpretation and report will be performed by the UWMC Cytogenetics Laboratory.

PROCEDURE

### Specimen Requirements

Bone Marrow/ Bone Core Biopsy (Keep bone marrow samples at room temperature and deliver to laboratory as soon as possible)

 1-3 ml of Bone Marrow or Leukemic Blood in an EDTA tube (lavender-top vacutainer preferred) or sodium heparin tube (green-top vacutainer).

Solid Tumors (Keep fresh tumor or fixed samples as described below and deliver to laboratory as soon as possible). Fresh specimens or formalin-fixed paraffin-embedded (FFPE) tissues/sections

* + Fresh Frozen Tumor Tissue: 50-150 mg (0.15-2.0 cm3) fresh tissue snaps frozen and stored at -20°C. Ship on minimum of 10 lbs of dry ice in an insulated container by overnight courier.
	+ FFPE Tumor Slides: 10 unstained 5μm FFPE slides containing adequate amounts of tumor to be analyzed with areas of tumor marked. Please include a copy of corresponding surgical pathology report. Send at 20-25°C and protect from excessive heat.
	+ FFPE Tumor Block: FFPE tissue block containing adequate amounts of tumor to be analyzed with areas of tumor marked. Please include a copy of corresponding surgical pathology report. Send at 20-25°C and protect from excessive heat.
	+ Cultures of Solid Tumor: two T-25 flasks that are 80% -100% confluent.

DNA Samples:

 Send 3-10 micrograms of DNA suspended in TE-buffer.

### Material and Equipment

Specimen Collection Kits from Signature Genomic Laboratories.

### Procedures

1. **Sample receiving and culture setup:** for detail see lab manual Chapter 2 (page 14-23)
	1. Log into MN book and give it MN # and date stamp
	2. Set up culture for FISH/karyotype confirmation with fixed cell pellet
		1. Bone marrow or Peripheral blood: green top tube per blood culture protocol, routine 72 hr A1 and A2 cultures (5 ml each), see blood culture protocol (p23-27).
		2. Solid tumor samples: coverslips and mass culture (p15-22)
	3. Place specimens in bucket to send out
2. **Sample Log In and send-out**
	1. Mail the samples to SGL using specimen collection kits
	2. Put in office for computer log in
	3. Check if any previous or concurrent cytogenetic studies have been performed.
		1. Case numbers are noted here, and
		2. copies of past cytogenetic studies are placed in the patient folder
	4. Print out multiple labels for files
	5. Login Genoglyphix to add subject and full description of indications for testing by
		1. Log onto Oncoglyphix ([www.oncoglyphix.com](http://www.oncoglyphix.com)) using the login and password provided by Signature Genomic Laboratories.
		2. Click on Add Subject List to add
			1. subject ID with UWMC case number
			2. sex of the patient
			3. referring physician
			4. DOB
			5. check prenatal sample box for STAT treatment
			6. full description of indications
			7. in the box of "Enter a new tag" add sample type as NE, NF, or TR
			8. then, click Add Subject
	6. When microarray data is ready for review, SGL will send us the notice by fax. Put fax notice in the case folder and inform technologist Data Ready for Review.

Written By: Director Approval:

(Signature and Date) (Signature and Date)

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**Cytogenetics and Genomics Laboratory**

**University of Washington Pathology**

**Seattle, Washington**

 **Report-Only Microarray Quality Assurance Checklist**

(Put checkmark with initials and date)

1. ***Set-up tech***
	1. \_\_\_\_Log into MN book and give it MN # and date stamp
	2. \_\_\_\_Set up culture for FISH/karyotype confirmation with fixed cell pellet
		1. Bone marrow or blood: see NE culture protocol, routine 72 hr A1 and A2 cultures (5 ml each)

 (note: do not need to setup separate cultures if karyotype study NE/NF is concurrent)

* + 1. TR: coverslips and mass culture
	1. \_\_\_\_Place purple top tube (5ml for blood) or AF tube (15ml for AF) in bucket to send out
1. ***Log In and Sample send-out (office staff)***
	1. \_\_\_Mail the samples to Signature Genomics (make sure we have enough specimen collection kits)
	2. \_\_\_\_Computer log in
	3. \_\_\_\_check if any previous or concurrent cytogenetic studies have been performed.
		1. Case numbers are noted here, and
		2. copies of past cytogenetic studies are placed in the patient folder
	4. \_\_\_\_Print out multiple labels for files
	5. \_\_\_\_Login Genoglyphix to add subject and full description of indications for testing
	6. \_\_\_\_Put Signature's fax in the case folder and inform tech Data Ready for Review

**3. *Primary Tech***

1. \_\_\_\_PDF, Karyogram, and Analysis Summary are printed
2. \_\_\_\_Initial "Case Reviewed" in Genoglyphix
3. \_\_\_\_Labels on all pages
4. \_\_\_\_related studies noted (ie. Karyotype study NE10-19)
5. \_\_\_\_all analysis completed (including karyotype if concurrent)
6. \_\_\_\_give folder to 2nd checker if normal
7. \_\_\_\_If abnormal, determine if FISH confirmation or G-banding confirmation is warranted. order FISH probe or proceed with G-banding confirmation
	* 1. \_\_\_\_G-banding confirmation
		2. \_\_\_\_FISH probes: locator\_\_\_\_\_\_\_\_, BAC probe\_\_\_\_\_\_\_\_\_order by date\_\_\_\_\_
		3. \_\_\_\_FISH confirmation (Vysis/BAC FISH test)
8. \_\_\_\_Abnormal marked on folder as **A**

**4*. Secondary Tech***

1. \_\_\_\_OGX analysis reviewed
2. \_\_\_\_Mark "Case Completed" in Genoglyphix
3. \_\_\_\_FISH results reviewed if necessary
4. \_\_\_\_Interpretation and recommendations
5. \_\_\_\_print out the OGX final report
6. \_\_\_\_Correct templates, ISCN nomenclature, and report are accurate and load in GCS

**Interpretation**

A. Normal / abnormal microarray analysis

B. Note: Results were discussed with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on \_\_\_\_\_\_\_\_\_\_

C. Parental chromosome analyses are warranted to determine if this was inherited from a parental rearrangement or a de novo event.

 \_\_\_\_family follow up by G-banding

 \_\_\_\_family follow up by FISH

 \_\_\_\_family follow up by array

**Comments:**

**UW Medicine - Pathology**

**Cytogenetics and Genomics**

**SIGNATURE PAGE FOR POLICIES AND PROCEDURES**

Procedure / Policy Title: Sample Handling and Send Out for Tech-Only Service of Signature Genomic Laboratories

Procedure / Policy Number: 400-11-01-22

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