**UW Medicine - Pathology**

400-11-01-20

**Evaluating and Reporting Microarray Results**

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| Adopted Date: 10/12/2012  Review Date: 10/19/2012  Revision Date: 02/2013 |

PURPOSE

After microarray analysis and related studies such as FISH confirmation and G-banding confirmation are complete, ISCN diagnosis and a report can be generated using Genoglyphix software and loaded in Genetic Computer System (GCS) with the findings of the analysis and other relevant information.

PROCEDURE

### Equipment

* + - 1. Genoglyphix software from Signature Genomic Laboratories
      2. Genetic Computer System (GCS)

### Procedures

1. **Primary analysis:** The primary technologist's responsibility is to make sure that a case is analyzed completely and accurately in a timely fashion. After analyzing the oligo array data completely, go through the Array CGH Quality Assurance Checklist in the patient folder, initial and date all check marks under Primary Tech for the following list (see the procedure of Oligo Array Data Analysis using Genoglyphix Software for detail).
   1. Print PDF file for the plots and flagged regions, Karyogram, and Analysis Summary
   2. Initial "Case Reviewed" in Genoglyphix
   3. Label all pages by putting patient label on every piece of paper/stapled papers in the case folder.
   4. Note related studies. Check if any previous or concurrent cytogenetic studies have been performed under Login on the QA checklist
   5. Check all data analysis completed (including karyotype if concurrent)
   6. Give folder to second technologist if normal
   7. If abnormal, determine if G-banding or FISH confirmation is warranted. Do G-banding confirmation when the region of gain or loss is larger than 5 Mb. For smaller gain (> 300Kb) or loss using FISH confirmation. Order BAC FISH probe from Signature Genomic Laboratories and determine the locator FISH probe. For small suspected non-CNV gain and loss or any uncertainty, check with directors to determine if FISH or array confirmation is appropriate.
   8. If FISH test done, supporting FISH documentation must complete and accurate including a copy of packing slip from SGL BAC probe.
   9. Abnormal marked on folder as red **A**
   10. After related studies are done, click on the **Final Review & Report**, enter ISCN diagnosis for array result and FISH result, make sure all annotation for the gains and losses are complete and accurate, and click on save report.
   11. Open Genetic Computer System (GCS), load ISCN diagnosis for array result, FISH result, and/or G-banding result, and load correct report template.
   12. Print the GCS report
2. **Secondary analysis:** The second technologist reviews all work completed for any errors or interpretative differences for QA purpose.
   1. GGX analysis reviewed
   2. Mark "Case Completed" in Genoglyphix
   3. Related studies such as FISH results reviewed
   4. Interpretation and recommendations are adequate
   5. Click on the **Final Review & Report**, check ISCN diagnosis for array result and FISH result, make sure all annotation for the gains and losses are complete and accurate, click on save report
   6. Check if correct templates, ISCN nomenclature, and report are accurate and loaded in GCS.
   7. Sign out case on the board.

Written By: Director Approval:

(Signature and Date) (Signature and Date)

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**UW Medicine - Pathology**

**Cytogenetics and Genomics**

**SIGNATURE PAGE FOR POLICIES AND PROCEDURES**

Procedure / Policy Title: **Evaluating and Reporting Microarray Results**

Procedure / Policy Number: 400-11-01-20

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ approve \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_to sign as Designee,on

\_\_\_\_\_\_\_\_\_\_\_, 20\_\_\_\_.

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Medical Director Medical Director Signature or Date Reviewed

Print or Designee Designee

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| **STAFF NAME**: (printed) | **STAFF SIGNATURE** | **DATE REVIEWED** |
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