CGI LABORATORIES

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|---|---|---|---|
| Patient Name: | **Smith, Jane** | Accession Number: | **Σ10 - 000075** |
| Sex: | ☐Male ☒Female | CGI ID No.: | 15243 |
| Date of Birth: | 5/25/1944 | Ordering Physician: | The BEST Doctor |
| Specimen: | Peripheral Blood | Client Account No.: | NJ97584 |
| Collected: | 2/24/2010 | Client Address: | 201 Route 17 North |
| Received: | 2/24/2010 | | Rutherford, NJ 07070 |
| Reported: | 3/03/2010 | Telephone: | 201-528-9200 |

# Σ SUMMATION REPORT

**CLINICAL DATA:** R/O myeloproliferative disorder. CBC results from 05/12/2010 are as follows: WBC: 19.3 K/uL, Hgb: 9.5 g/dL, HCT: 29.9%, MCV: 105.7 fL, Platelet: 401K/uL. Differential: 72.2% lymphocytes, 3.3% monocytes, 24.5% granulocytes.

## FINAL DIAGNOSIS

Leukocytosis, and macrocytic anemia, with left-shifted myeloid maturation and rare blasts (2%), consistent with a myelodysplastic/myeloproliferative neoplasm, with abnormal karyotype (deletion 20q); BCR-ABL fusion negative; and Jak2 V617F mutation positive.

## COMMENTS

Bone marrow biopsy is recommended to rule out transformation to acute leukemia. Clinical follow up is recommended.

## MORPHOLOGY

Leukocytosis, and macrocytic anemia, with left-shifted myeloid maturation and rare blasts, consistent with a myelodysplastic/myeloproliferative neoplasm.

## FLOW CYTOMETRY

The blast count is approximately 2%. A small population of mature myeloid cells show aberrant CD56 expression, suggestive of dysmyelopoiesis. There is no evidence for a monoclonal B or unusual T cell population.

## KARYOTYPE

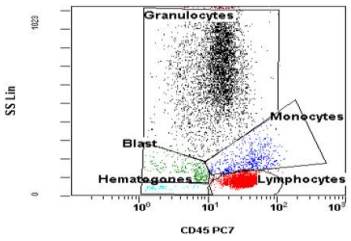
46,XX,del(20)(q11.2)[11]
The observed chromosome analysis revealed deletion of long arm of chromosome 20 in 11 metaphases. Deletion 20q is commonly seen in various types of hematopoietic malignancies (i.e. MDS, MPD, and ANLL).

## FISH

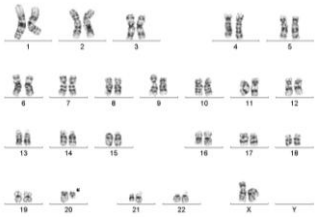
Abnormal MDS FISH Panel, with deletion of 20q.
Negative for BCR/ABL fusion.

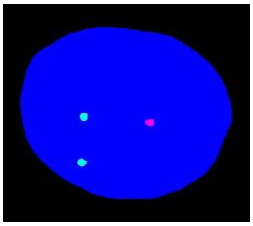
## MOLECULAR

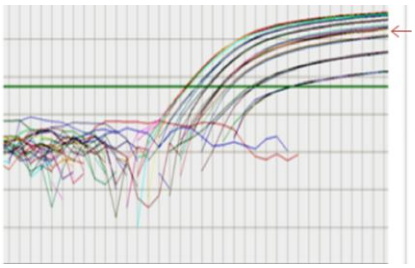
Jak2 V617 mutation: Positive



**Flow Plot of CD45 vs. SS**


**Karyotype 46,XX,del(20)(q11.2)**


**FISH Del (20)q12**


**JAK2V617F mutation 11%**

**Electronically signed by**:

_____, M.D.

Hematopathologist
Date: 3/03/2010

LABORATORIES

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## About Cancer Genetics

Cancer Genetics, Inc. (CGI) is a full-service cytogenetics and specialized anatomic pathology laboratory, focused on providing comprehensive diagnostic, prognostic, therapeutic, and disease-monitoring information on hematopoietic malignancies and solid tumors.

Our services in cancer testing are supported by research and the highest technical quality derived from a panel of prominent scientific and medical advisors in this field – all focused on personalized care for the patient. CGI is committed to its mission of **Empowering Personalized Cancer Treatment™**.

## Personalized Service

CGI's dedicated staff takes pride in our client-oriented attitude, oncology-focused reference laboratory services, superior turnaround time, enhanced reporting capabilities, electronic medical record (EMR) integration, and ongoing research and development for new tests. Our cutting-edge proprietary tests provide critical genomic information to clinicians to assist with diagnosis, prognosis, and therapeutic guidance of urogenital and HPV-associated cancers and hematological malignancies such as our CLL Complete℠ test menu. This menu provides valuable results to risk-stratify individual patients for disease progression, response to treatment, and overall prognosis of Chronic Lymphocytic Leukemia (CLL).

Summation Report

## Technical and Professional Diagnostic and Prognostic Services

Summation℠ is our proprietary comprehensive one page color diagnostic summary report. By choosing Summantion℠, our hematopathologist will work up the case based on the clinical information and diagnosis provided. Our Summation℠ report integrates IHC, flow cytometry, cytogenetics, FISH and molecular genetic test results into a concise and clinically relevant summary that:

- Provides comprehensive diagnostic information
- Utilizes user-friendly and easy to interpret format
- Offers appropriate patient management information

### Test Methodologies

- **Flow Cytometry**
- **Anatomical Pathology**
- **Cytogenetics**
  - Chromosomal G-Banding
  - FISH, including Enriched Plasma Cells FISH
- **Molecular Diagnostics**
  - PCR and Sequencing
  - Pyrosequencing
  - CGH-Microarray