**SPECIMEN TYPE (see back of form for details)**

- □ Peripheral blood (EDTA)
- □ Bone marrow aspirate
- □ Cord blood
- □ Gynecologic specimen (ThinPrep)
- □ Nasopharyngeal swab
- □ Other (specify):

**MOLECULAR PATHOLOGY**

- □ RNA-based testing:
  - □ BCR-ABL1 RT-PCR (Qualitative)
  - □ BCR-ABL1 RT-PCR (p210 Quantitative)
  - □ PML-RARA RT-PCR (Qualitative)
  - □ Leukemia translocation panel
  - □ NPM1 mutation analysis

- □ DNA-based testing:
  - □ FLT3 mutation analysis (ITD and D835)
  - □ JAK2 p.V617F mutation analysis
  - □ BrafV600E mutation analysis (codon 600)
  - □ EGFR mutation analysis (Ex19 del, L858R)
  - □ IGH rearrangement
  - □ TCR gamma (TRG) rearrangement
  - □ MGMT methylation assay
  - □ HPV (specify in ID testing below)

**INFECTIOUS DISEASE TESTING**

- □ Respiratory virus panel (RVP)
- □ Viral load, specify: □ BKV □ EBV □ CMV □ HBV □ HIV □ HCV
- □ HCV genotyping (includes HCV viral load)
- □ HPV high-risk DNA, gynecologic (includes 16/18 genotyping)
- □ HPV high-risk DNA, non-gynecologic
- □ HPV high and low-risk DNA genotyping

**IDENTITY TESTING**

- □ Cystic fibrosis (23 CFTR mutation panel):
  - □ Screening
  - □ Diagnosis (incl. CBAVD)
- □ Factor V Leiden (F5) mutation analysis
- □ Prothrombin (F2) mutation analysis
- □ C9orf72 hexanucleotide repeat expansion
- □ MAPT sequencing for FTD
  - □ Exons 1-9-13
  - □ Single exon
- □ GRN sequencing for FTD
  - □ Exons 1-13
  - □ Single exon
  - For MAPT or GRN single exon sequencing, specify exon and mutation:

- □ Chimorism analysis (specify type and IDs)
- □ Pre-transplant evaluation (provide recipient buccal swab and blood)

**GENETIC TESTING**

- □ Recipient name:
- □ Donor 1 name or ID:
- □ Donor 2 name or ID:

**OTHER TESTING**

- □ Send out for BCR-ABL1 p190 quantative RT-PCR
- □ Other, specify:

**LABORATORY USE ONLY**

- Requesting pathologist:
- Resident/Fellow performing triage:
- Non-MP accession number (if applicable):
- Approved tests and comments:
GENERAL GUIDE TO SPECIMEN TYPES FOR MOLECULAR PATHOLOGY TESTING

Refer to https://www.testmenj.com/HUP for more detailed specimen requirements by test.

Peripheral blood: EDTA containing blood tubes (pink or lavender) are appropriate for all genetic testing and for DNA and RNA-based oncology testing and identity testing where peripheral blood is the specimen of interest. RNA-based testing requires more volume, thus the pink top tube is the preferred tube as one lavender top tube does not provide sufficient volume. Peripheral blood is also appropriate for all viral load testing (pink top preferred). For post-transplant chimerism analysis unfractionated blood (lavender preferred) will be tested along with specified cellular subsets (requires additional blood tubes for each subset). Lavender and pink top may be used interchangeably provided that sufficient volume is collected.

Tissue that is fresh (in Michel’s medium) or frozen may be submitted for genetic testing as well as IGH and TRG rearrangement studies. Tissue fixed in formalin is acceptable for selected oncology testing including IGH and TRG, BRAF and EGFR mutation analysis, MGMT methylation analysis, and HPV DNA testing and genotyping.

Bone marrow aspirate in lavender tubes can be used for DNA and RNA-based oncology molecular testing and identity testing.

Cord blood is appropriate for pre-transplant chimerism analysis.

Buccal swabs are used for recipient pre-transplant chimerism analysis.

Gynecologic specimens in ThinPrep medium are appropriate for HPV DNA testing.

Fine needle aspirates are appropriate for oncologic molecular tests including BRAF mutation analysis and HPV DNA testing.

Nasopharyngeal swabs (using NP flocked swab Lawson# 195443) are appropriate for respiratory virus panel (RVP) testing which includes influenza A/B, RSV A/B, parainfluenza virus 1/2/3, adenovirus, and human metapneumovirus.

Bronchoalveolar lavage (BAL) specimens can be used for RVP testing and CMV viral load.

Prenatal specimens (amnio or CVS) may be submitted for maternal contamination studies or other identity testing. A concurrent maternal peripheral blood specimen (lavender tube) is required.

Please call the laboratory if in doubt about the acceptability of any specimen or specimen type.
Molecular Pathology Laboratory Main Number: (215) 662-6121.