SPECIMEN TYPES

Bone Marrow

Requirements: 3-5 cc drawn in an EDTA (purple-top) tube. 
Transport Conditions: Transport at ambient temperature (18-25°C / 64-77°F) in an insulated container. Specimens should arrive in the laboratory within 48 hours of collection. Do not freeze.

Leukemic Blood

Requirements: 3-5 cc drawn in an EDTA (purple-top) tube. (White blood cell count > 10,000 cells/mL with at least 15% circulating blasts or malignant cells.) 
Transport Conditions: Transport at ambient temperature (18-25°C / 64-77°F) in an insulated container. Specimens should arrive in the laboratory within 48 hours of collection. Do not freeze.

Isolated Genomic DNA

Requirements: 20 µL at a minimum of 35 ng/µL determined by a fluorescent based assay (i.e. Qubit, picogreen). All DNA received by the laboratory not meeting our quality control standards will not be tested and an inadequate specimen report will be generated. Must be isolated in a certified CLIA laboratory.

Transport Conditions: Transport at ambient temperature (18-25°C / 64–77°F) in an insulated container by overnight courier. Specimens should arrive in the laboratory within 48 hrs of collection.

CONTACT

For more information please contact The Center for Personalized Diagnostics
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Isolated Genetic DNA

Requirements: 20 µL at a minimum of 35 ng/µL determined by a fluorescent based assay (i.e. Qubit, picogreen). All DNA received by the laboratory not meeting our quality control standards will not be tested and an inadequate specimen report will be generated. Must be isolated in a certified CLIA laboratory.

Transport Conditions: Transport at ambient temperature (18-25°C / 64–77°F) in an insulated container by overnight courier. Specimens should arrive in the laboratory within 48 hrs of collection.

Fine Needle Aspirate Rinse Material containing Malignancy (confirmed with on-site evaluation by Penn Medicine cytopathology or final interpretation)

Requirements: Greater than 15% tumor nuclei in sample (on smears or liquid-based cytology slides or cell block slides). PennMedicine is unprepared for potential molecular testing from Cytopathology, sent directly to CPD within three weeks of original collection date. (Note, FNA cell blocks if adequate can be utilized longer than 3 weeks).

Transport Conditions: Transport at ambient temperature (18-25°C/64-77°F). Do not freeze. Specimens can only be used within three weeks of original collection date.

Malignant Effusions, Liquid

Requirements: Greater than 15% tumor nuclei in sample (confirmed with on-site evaluation by Penn Medicine cytopathology or final interpretation). PennMedicine is unprepared for potential molecular testing from Cytopathology, sent directly to CPD within three weeks of original collection date. (Note, malignant effusion cell blocks if adequate can be utilized longer than 3 weeks).

Transport Conditions: Transport at ambient temperature (18-25°C/64-77°F). Do not freeze. Specimens can only be used within three weeks of original collection date.
The Center for Personalized Diagnostics (CPD) is a joint initiative between Penn Medicine’s Department of Pathology and Laboratory Medicine and the Abramson Cancer Center. The Center integrates molecular genetics, pathology informatics and genomic pathology to develop personalized diagnostic profiles for individuals with cancer. The CPD offers the highest volume of genotyping testing in the region.

**HEMATOLOGIC MALIGNANCIES PANEL**

- Covers:
  - Phenotypic test
  - Includes major hematologic malignancies

**LYMPHOMA PANEL**

- Covers:
  - Phenotypic test
  - Includes major lymphomas

**COMPREHENSIVE SOLID TUMOR PANEL**

- Covers:
  - Phenotypic test
  - Includes 126 commonly mutated genes

**PENN PRECISION PANEL**

- Covers:
  - Phenotypic test
  - Detects:
    - Hotspots and the entire coding sequence of TP53
  - Minimum Requirements:
    - Minimum tumor content of 10% neoplastic tissue

**RESULTS**

- Report categories for DNA-based tests, include abnormal, variant, and no result based upon the types of variants detected.
- Benign population variants are not reported.
- Associated variants or 2) variants of uncertain significance (VOUS).

**BRAIN CANCERS**

- RESULTS: 19.4%
- 12%
- LUNG CANCER

- RESULTS: 16%
- MELANOMA

- RESULTS: 14%
- Mylar, Melanoma, Brain Cancer, Acute Myeloid Leukemia

- RESULTS: 16%
- Lung Cancer

**REPORTS**

- Reports include all variants found in the tested specimen that are not supported by the literature as germline or population variants.
- These variants are classified into one of two categories: 1) abnormal- associated variants or 2) variants of uncertain significance (VOUS).
- Designation of population variants as rare or absent is not supported by the literature as germline.
- Report categories for DNA-based tests, include abnormal, variant, normal, and no result based upon the types of variants detected.
- Results from the Fusion Transcription Panel indicate potential for treatment of the reported cancer type.

**CICHERT**

- Chair of Pathology and Laboratory Medicine

**DATA FROM 10,000 PATIENTS ANALYZED**

- The CPD’s tests reveal the genetic makeup of each patient’s cancer. The data, expert opinions, and recommendations are aggregated to take an individualized approach to cancer care.
- Using these tests, our oncologists can take an individualized approach to cancer care.

*The Chair of Pathology and Laboratory Medicine*

- D. Gregor, MD, FACP

Penn Precision Panel, Comprehensive solid tumor panel, Penn Personalized Panel, Fusion Transcription Panel, Cardiac Panel.