

# **MOLECULAR GENETIC PATHOLOGY**

## **Department of Pathology and Laboratory Medicine**

### **SCOPE OF PRACTICE**

#### **PGY – 5**

---

---

The Molecular Genetic Pathology Fellowship is a sub-specialty training program leading to potential certification by the American Boards of Pathology and Medical Genetics after completion of this ACGME-accredited program and completion of subsequent board examination. Fellows will have completed an ACGME-accredited residency in either Pathology or Medical Genetics. The overall goal of the program is to specifically train fellows in the practice of diagnostic molecular pathology, the use and interpretation of molecular laboratory techniques, and in the independent administration and directing of a molecular laboratory. The fellowship program is structured to include didactic, clinical and laboratory experiences in the following areas:

- General principles and medical knowledge of molecular biology and molecular diagnostics
- Clinical practice of molecular genetic pathology diagnostics including:
  - Appropriate use and interpretation of molecular assays
  - Performance and trouble-shooting of molecular technologies
  - Hands-on practical and sign-out experience in various molecular assays including:
    - Molecular hematopathology
    - Molecular microbiology
    - Solid tumor molecular oncology, including next-generation sequencing
    - Cytogenetics, includes prenatal, cancer, and solid tumor and hematopoietic FISH, and microarray-based analyses
    - Histocompatibility and clinical immunogenetics
- Laboratory administration
  - Quality control and quality improvement projects
  - New assay development, validation and implementation

# **MOLECULAR GENETIC PATHOLOGY**

## **Department of Pathology and Laboratory Medicine**

### **SCOPE OF PRACTICE**

#### **PGY – 5**

---

- Personnel management
- Regulatory and fiscal issues
- Surgical pathology and autopsy rotations (for medical genetics-trained fellows only)
- Clinical genetic rotations (for pathology-trained fellows only)
- Other scholarly and didactic activities
  - Research project(s)
  - Presentation of research findings at national meetings
  - Publication of at least one peer-reviewed paper in the field
  - Didactic seminar experiences