



Cleveland Clinic Laboratories

# Molecular Pathology Services

**Trust** in us for everything you need in a reference lab.





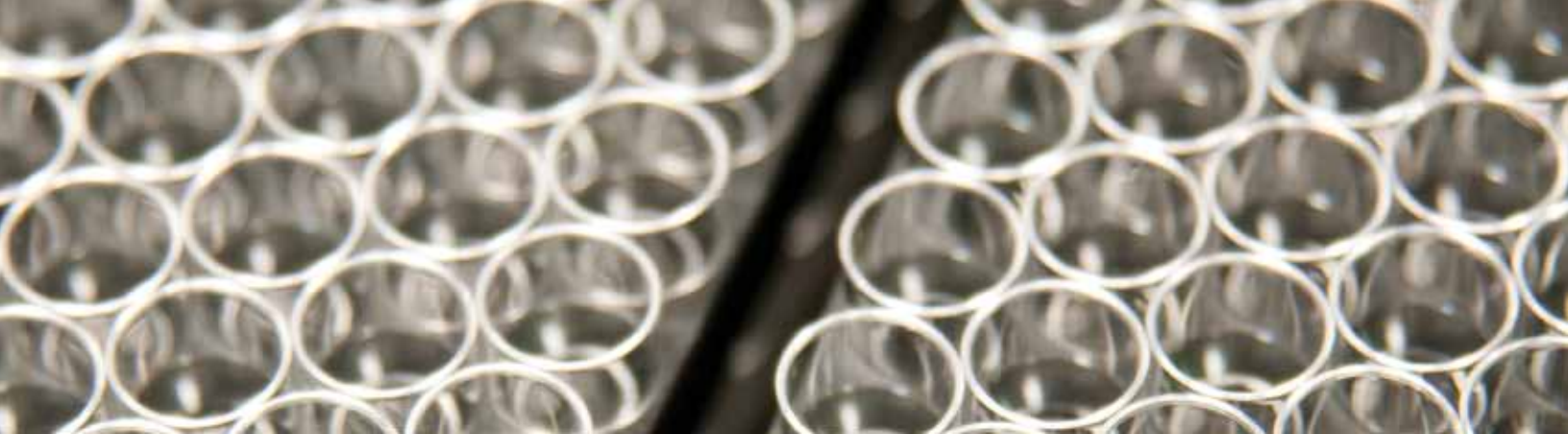
Cleveland Clinic Laboratories' Department of Molecular Pathology boasts an expansive menu of tests that range from commercially available moderately complex assays to esoteric and highly complex molecular diagnostic tests. With every test result, the department is focused on delivering personalized, world-class service and total customer satisfaction. The structure of the Department of Molecular Pathology was developed with the goal of fostering in-depth knowledge and expertise in all of the areas that require such testing, as evidenced by the sections within the department. In addition, it is our goal to develop and maintain expertise in the specific molecular diagnostic technologies that are needed to offer a full menu of diagnostic testing to meet the needs of our clients and their patients.

### Sections

The Department of Molecular Pathology contains five sections, which are recognized by leading national organizations. These sections include:

- **Cytogenetics:** Performs traditional and molecular chromosomal analysis that encompasses constitutional and neoplastic disease.
- **Molecular Genetic Pathology:** Performs a variety of analyses that assess for an array of germline disorders.
- **Molecular Hematopathology:** Offers numerous PCR, FISH and other molecular assays for abnormalities associated with hematolymphoid disease.
- **Molecular Oncologic Pathology:** Provides integrative molecular pathology diagnostic services for a variety of tumor types.
- **Molecular Microbiology:** Responsible for the molecular detection and characterization of infectious agents.





### Staffing, Structure and Experience

Our anatomic and clinical pathologists were among the first to routinely use molecular tests in the clinical setting, making our team of pathologists and technologists one of the most experienced teams in the country in clinical applications and interpretation of molecular testing.

The majority of our anatomic and clinical pathologists have primary appointments in their respective departments with joint appointments in Molecular Pathology. This inclusion of our world-class staff members in the Department of Molecular Pathology helps to assure professional level interaction with respect to molecular target selection, diagnostic assay verification and, whenever possible, integrated results reporting. In this manner, we assure that the pathologist most knowledgeable about the type of disease present (i.e. the subspecialty expert) is able to produce a single, integrated report that contains both traditional, immunohistochemical and molecular diagnostic findings.

### Operational Cores

The Department of Molecular Pathology achieves efficiencies by operating a number of core laboratories within Cleveland Clinic Laboratories around key technologies. The cores consist of:

- Materials handling core
- Extraction core
- Rapid-cycle and traditional polymerase chain reaction (PCR) core
- Commercial assays core
- Cytogenetic core
- Fluorescence *in situ* hybridization (FISH) core
- Sequencing core
- Microarray core
- Methylation and epigenetics core

This core concept provides us the opportunity to integrate continuous improvement tools to optimize laboratory productivity, which in turn translates into better turnaround time for patient results. Although a high degree of efficiency is a goal of each core, a keen eye is maintained on quality metrics and quality improvement initiatives are ongoing.





## Molecular Pathology Staff



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## Cleveland Clinic

Every life deserves world class care.

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Cleveland Clinic is an integrated healthcare delivery system with a main campus, 18 family health centers, eight community hospitals and locations in Ohio, Florida, Nevada, Toronto and Abu Dhabi. It is a not-for-profit group practice where nearly 3,000 staff physicians and scientists in 120 medical specialties collaborate to give every patient the best outcome and experience. Cleveland Clinic is ranked among America's top hospitals overall, and among the nation's leaders in every major medical specialty (*U.S. News & World Report*).  
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