

**Molecular Diagnostic Science Program  
The Division of Clinical Laboratory Science  
The University of North Carolina at Chapel Hill**

**Establishing a new clinical site**

The UNC MDS program currently uses the following clinical sites for the six month clinical rotations:

- UNC Hospitals, Chapel Hill, NC
- Duke University Medical Center, Durham, NC
- Laboratory Corporation of America, Research Triangle Park, NC
- Quest Diagnostics Nichols Institute, Chantilly, VA
- Molecular Pathology Laboratory Network, Maryville, TN

In these institutions, MDS students have the educational opportunities needed to master the goals and objectives of three courses in the MDS curriculum:

- CLSC 730 Research Design and Method Evaluation (3 credits, Spring semester)
- CLSC 740 Clinical Rotation in Molecular Diagnostics I (4 credits, Spring semester)
- CLSC 750 Clinical Rotation in Molecular Diagnostics II (2 credits, Summer Session I)

Additional clinical sites may be added to the list of clinical sites for the MDS program if the following criteria are met:

**1. Clinical Contract.**

The laboratory director at the site signs an affiliation agreement with the Division of Clinical Laboratory Science at UNC-CH. This document describes the responsibilities of the MDS program and the clinical site. It ensures that all parties have agreed to teach the students in this clinical setting.

**2. Clinical Coordinator.**

The clinical site must assign a clinical coordinator who will oversee the student's clinical rotation and ensure that the student has the opportunity to meet the MDS course goals and objectives.

**3. Full service molecular Laboratory.**

The clinical site must perform a full range of molecular tests so that the student can practice and gain competence in the following areas:

**Nucleic acid extraction**

- Manual methods
- Automated methods

**Infectious disease testing**, including but not limited to:

- HIV quantitation (standard and ultra)
- HIV genotyping
- HCV quantitation
- HCV genotyping
- HSV, EBV, CMV, HPV, VZV, *Chlamydia/Neisseria* (CT/NG) testing

**Molecular Genetics**

- Fragile X
- Connexin 26 (GJB2) gene mutation for hearing loss

Cystic fibrosis (CFTR) mutation panel  
Factor V Leiden and Factor II (Prothrombin) mutations for venous thrombosis  
Hemochromatosis (HFE gene)  
MCAD deficiency  
Prader Willi or Angelman Syndrome

### **Cancer Diagnostics**

Solid tumors  
    BRCA 1 / 2 gene mutations for breast cancer  
    Microsatellite instability testing for colon cancer  
Leukemia/ Lymphoma  
    Bcr-Abl for leukemia  
    T and B cell clonality

### **Identity testing**

Paternity testing  
DNA fingerprinting for bone marrow engraftment  
Forensic testing  
High resolution HLA typing

A prospective student who is interested in establishing a new clinical site should:

1. Ensure that the institution performs a full range of molecular tests. Most institutions post their test menus on their web pages.
2. Contact the site and determine whether or not they are willing to teach a student for the six-month clinical rotation.
3. Provide the name of the contact person at the site to the UNC-CH MDS program.

The UNC MDS program will contact the site and determine whether or not the site is appropriate for the program. If the site is acceptable, the UNC MDS program will begin the process of establishing a clinical contract with the site. **Please note that this process can take 6 months.** Whenever possible, a UNC faculty member will visit the new clinical site prior to a student's clinical rotation. If an on-site visitation is not possible, the UNC faculty member will work closely with the clinical coordinator at the new site to ensure that the setting supports the goals and objectives of the MDS program. If a student accepted into the MDS program needs to complete the clinical rotation before the site is established, the student will be offered an existing clinical site.

Prior to beginning a clinical rotation, UNC MDS students are required to complete safety training and HIPAA training. Students also document their immunization status and undergo criminal background checks. While in clinical rotations, MDS students must have major medical insurance.

Clinical sites may wish to support MDS students while they are in the clinical rotation with a stipend or salary. Clinical sites do not receive any financial support for participating in the MDS program.