

Diagnostic Molecular Scientist

The diagnostic molecular scientist performs diagnostic assay or testing using a variety of manual techniques and precision instruments. The results of these tests are used to detect and diagnose disease and other abnormalities. The main responsibilities of the diagnostic molecular scientist are all aspects of genetic testing, including DNA and RNA isolation, amplification and detection, infectious disease testing, and viral load analysis.



Career Description

Diagnostic molecular scientists provide service in the molecular diagnosis of acquired, inherited, and infectious diseases. This includes researching, evaluating, implementing, and monitoring methods of collection, transport, and handling of various specimen types for molecular analysis; researching and developing principles, practices, and applications of molecular-based testing for laboratory utilization and clinical decisions for client outcomes; and performing appropriate techniques utilizing instrumentation and information management systems for molecular analysis and correlating results with acquired, inherited, and infectious diseases. Finally, diagnostic molecular scientists apply the principles of management and supervision when they function as section supervisors and of educational methodology when they teach students.



Employment Characteristics

Most diagnostic molecular scientists work in hospital laboratories.



Educational Programs

Length. Programs for the diagnostic molecular scientist usually lead to a master's degree.

Prerequisites. College level courses as required by the sponsoring institution.

Curriculum. The curriculum includes both didactic instruction and practical demonstration in the areas of organic and/or biochemistry, genetics, cell biology, microbiology, immunology, diagnostic molecular biology, principles and methodologies for all major areas commonly practiced by a modern diagnostic molecular laboratory, and clinical significance of laboratory procedures in diagnosis and treatment. It also includes principles and practices of:

- Laboratory administration, supervision, safety, and problem solving
- Quality management
- Computer science (including acquisition and evaluation of laboratory information systems)
- Professional conduct



Inquiries

Careers/Curriculum

American Medical Technologists
10700 West Higgins Road, Suite 150
Rosemont, IL 60018
847 823-5169
E-mail: mail@amt1.com
www.amt1.com

American Society for Clinical Laboratory Science
6701 Democracy Blvd., Suite 300
Bethesda, MD 20817
301 657-2768
301 657-2909 Fax
E-mail: ascls@ascls.org
www.ascls.org

American Society for Clinical Pathology
33 West Monroe, Suite 1600
Chicago, IL 60603
312 541-4999
E-mail: info@ascp.org
www.ascp.org

Certification/Registration

American Society for Clinical Pathology
Board of Registry
PO Box 12270
Chicago, IL 60612
312 738-1336, Ext 1341
E-mail: bor@ascp.org
www.ascp.org

National Certification Agency for Medical Laboratory Personnel
PO Box 15945-289
Lenexa, KS 66285
913 438-5110
E-mail: nca-info@goamp.com
www.nca-info.org

American Association of Bioanalysts
Board of Registry
906 Olive Street, Suite 1200
St. Louis, MO 63101-1434
www.aab.org

American Medical Technologists
10700 W. Higgins Road, Suite 150
Rosemont, IL 60018
847 823-5169
E-mail: mail@amt1.com
www.amt1.com

Program Accreditation

Dianne M Cearlock, PhD
Chief Executive Officer (CEO)
National Accrediting Agency for Clinical Laboratory Sciences
5600 River Rd, Suite 720
Rosemont, IL 60018
773 714-8880
773 714-8886 Fax
E-mail: dcearlock@naaccls.org
www.naaccls.org