

Class Concept

Employee is responsible for developing and performing a variety of highly complex and advanced laboratory diagnostic work to identify etiologic causes, disease agents, abnormalities, and other factors associated with human disease and pathogenesis. Employees provide professional, diagnostic and technical direction for laboratory assay method development, implementation, quality assurance, technical training, problem assessment, and routine maintenance of cutting edge diagnostic techniques in a variety of public health laboratory fields (including bacteriology, virology, serology, parasitology, mycology, mycobacteriology, medical genetics, and environmental health sciences). These diagnostic assays are often considered "laboratory developed tests" (LDTs) that require advanced training in molecular or state-of-the-art diagnostics and experience in method development, unlike other assays that are performed using commercially-available and/or FDA-cleared kits. Employee independently performs and coordinates state-of-the-art analytical procedures used to support clinical diagnosis, environmental assessment, epidemiologic investigation and other evaluations that are supported by laboratory diagnostic methodologies. Employee typically reports to senior-level laboratory leadership. Employee may develop policies and procedures for new and existing laboratory diagnostic programs. Work in this class includes training, technical assistance and consultation regarding laboratory and diagnostic activities. Employee serves as a technical expert in assigned area. Employee may supervise junior scientists, technologist and other laboratory scientists.

Recruitment Standards

Knowledge, Skills, and Abilities

- Thorough knowledge of molecular biology, microbiology, immunology, protein chemistry, nucleic acid amplification, cell isolation, and medical genomics principles.
- Ability to conduct independent, applied research to optimize detection of a variety of analyses using state-of-the-art techniques and tools.
- Experience with good laboratory practice, CLIA and other regulatory agency requirements, and laboratory quality management systems.
- Expertise in interpreting analytical results, assessing quality control measurements, and consultation with program managers, clinicians, public health professionals, and laboratory scientists.
- Ability to compile scientific data from analytical results; prepares reports; presents reports of findings, studies and research to management, laboratory peers, health care providers, program managers, scientific meetings/seminars/conferences, and other pertinent parties; and conduct root-cause analyses.
- Knowledge of public health, epidemiology, biostatistics/bioinformatics including the use of statistical software and statistical programming language.
- Thorough knowledge of the principles and practices used in the field of microbiology, pathogenesis of microbial agents and application of medical science.
- Considerable knowledge of computer operating and network systems, and data communication systems.
- Considerable knowledge or expertise in one or more areas of public health program administration, policy, budgetary practices, supervision and grant writing.
- Ability to communicate effectively orally and in writing.
- Demonstrated leadership, and planning, organizational and problem solving skills.

Minimum Education and Experience

Doctoral degree in in molecular biology, medical genetics, microbiology, immunology or analytical chemistry or a related field from an appropriately accredited institution and two years of clinical laboratory or research experience; or

Master's degree in any of the above fields from an appropriately accredited institution and five years of clinical laboratory or research experience; or an equivalent combination of education and experience.

Administering the Class:

This position must be eligible to meet the Federal CLIA '88 personnel requirements for a technical supervisor of a high complexity testing laboratory (Reference: CLIA Final Rule: 42 CFR 4931449, January 24, 2003).