

Competency-Based Position Description Template

Program/Department:

Position Title: Laboratory Scientist

Reports to: Laboratory Manager (or Front Line Supervisor)

Previous Incumbent:

Job Position Summary:

Laboratory Scientists work as generalists or specialists in the laboratory, performing analyses of human tissue, body fluids and environmental sources, such as food and water. These tests may be basic to highly complex, and encompass knowledge of microbiology, chemistry, immunology and other disciplines, all performed under a quality management system. Work is performed under the general direction of a technical supervisor, and is compliant with regulatory requirements. These scientists routinely rotate through the various areas of the laboratory including clinical and environmental microbiology, molecular diagnostics, newborn screening, immunology, toxicology and environmental chemistry.

Essential Job Duties:

- Conducts analyses and reports results from analysis/research findings to aid in the diagnosis, treatment and monitoring of diseases of public health significance or in investigating other public health and environmental hazards.
- Complies with quality management processes and policies; recommends process improvements
- Troubleshoots instrumentation and testing problems
- Provides technical guidance to public health partners, clinicians, and the public
- Assists in training new staff

Job Position Competencies:

General Laboratory Practice (50%)

GEN 1.00 - General technical and laboratory practice knowledge: demonstrates general knowledge and skills related to the scientific and technical components of laboratory testing

-Ensures that accepted concepts and theories are applied to laboratory testing (P)

-Ensures appropriate utilization of mathematical and statistical concepts and practices (P)

-Integrates scientific and technical advances into laboratory operations (P)

-Integrates basic laboratory techniques into standard operating procedures and new laboratory practices (C)

- Resolves complex technical problems with methods, procedures, and laboratory equipment, including documenting corrective action (P)
- Implements model laboratory practices (P)
- Ensures utilization of established paper and electronic documentation methods or systems (P)
- Identifies methods to improve stewardship of resources (C)
- Serves as a role model, consistently conforming to the highest scientific standards and practices (C)

GEN 2.00 - Reagent Use and Storage: adheres to policies and principles regarding the use and storage of laboratory reagents and supplies

- Adheres to policies, processes, and procedures for use and storage of reagents and supplies (B)
- Adheres to policies, processes, and procedures for preparing reagents (B)

GEN 3.00 - Equipment Use: adheres to policies and principles regarding the use, maintenance, and calibration of laboratory equipment

- Adheres to policies, processes, and procedures for operating laboratory equipment (B)
- Determines need for repair or replacement of laboratory equipment (P)
- Performs calibration of complex instruments and equipment (C)
- Inspects preventive maintenance and calibrations records for completeness (C)

GEN 4.00 - Pre-examination: performs steps in the pre-examination phase of testing

- Instructs others in policies, processes, and procedures for sample management (C)

GEN 5.00 - Examination: performs steps in the examination phase of testing

- Instructs staff in sample analyses (C)
- Instructs staff in policies, processes, and procedures regarding testing workflow (C)
- Interprets QC data prior to reporting results (C)
- Examines QC data over time to establish QC ranges and limits (P)

GEN 6.00 - Postexamination: performs steps in the postexamination phase of testing

- Evaluates QC data for a given data reporting period (C)
- Interpret complex or ambiguous results (P)
- Instructs staff in the policies, processes, and procedures related to reporting and release of examination results and notifiable results (C)
- Identifies process efficiencies to improve TAT (P)
- Collects data for reporting on QA indicators and processes (C)

GEN 7.00 - Regulatory Compliance: complies with regulations and guidelines governing laboratory testing

- Instructs staff on regulatory requirements and guidelines related to laboratory testing (C)
- Performs PT and alternative assessment (B)
- Reports PT and alternative assessment (B)
- Compiles results of method validation and performance verification (C)
- Complies with policies, processes, and procedures regarding protected information (B)

Chemistry (15%)

CHM 2.00 Facilities and safety: works safely with hazardous materials within a laboratory facility

- Instructs others in safe work practices, policies, and procedures related to chemical hazards (C)
- Instructs staff in the use of PPE (C)
- Instructs staff in the use of engineering controls (C)

CHM 3.00 Pre-examination: performs chemistry pre-examination procedures

- Adheres to policies, processes, and procedures regarding the identification, handling, safety, appropriateness and triage of samples containing chemical agents of concern (C)

CHM 6.00 Regulatory compliance: ensures regulatory compliance

- Evaluates LDT validation data (C)

Microbiology (15%)

MCB 2.00 Facilities and safety: works safely with microbiological agents within a laboratory facility

- Instructs others in policies, processes, and procedures regarding safe work practices related to microbiological agents (C)
- Instructs staff in policies, processes, and procedures regarding PPE use for work related to microbiological agents (C)
- Instructs staff in use of biosafety cabinets and other engineering controls (C)
- Adheres to policies, processes, and procedures regarding storage of microbiological materials (B)

MCB 3.00 Pre-examination: assesses microbiological samples during the pre-examination phase

- Performs packing and shipping of Category A and Category B infectious substances (B)
- Adheres to policies, processes, and procedures regarding the identification, handling, safety, appropriateness and triage of samples containing agents of concern (C)
- Reports to epidemiologists when microbiological examination requests warrant notification (C)

MCB 6.00 Regulatory compliance: ensures regulatory compliance

- Evaluates LDT validation data (C)
- Complies with policies, processes, and procedures related to the federal Select Agent Program, including the securing, safe handling, and testing of select agents and the documentation of activities (C)

Quality Management Systems (10%)

QMS 03.00 Facilities and safety: ensures that the laboratory's physical environment, maintenance, and safety programs meet applicable requirements

- Participates in required workplace training regarding safety and maintenance of the physical environment (B)
- Ensures security and containment of staff, samples, laboratory supplies, and laboratory equipment (P)
- Applies waste management policies, processes, and procedures to activities (C)
- Provides input on emergency management and response policies, processes, and procedures (P)

QMS 05.00 Purchasing and inventory: ensures that requirements for supplies and services are consistently met

- Participates in laboratory procurement process (C)
- Develops inventory processes for laboratory supplies, reagents, and verification of performance (P)

QMS 06.00 Laboratory equipment: ensures that laboratory equipment selection, installation, use, maintenance, and troubleshooting meet performance standards

- Provides input on the processes and procedures for equipment acquisition and decommissioning (C)
- Performs equipment installation, operational, and performance qualification procedures (C)
- Performs procedures for the maintenance, troubleshooting, and service and repair of equipment (C)
- Performs calibration of instruments and equipment (C)

QMS 07.00 Process management: ensures that operational processes meet organizational requirements

- Applies workflow processes according to laboratory policies, processes, and procedures (C)
- Performs procedures for method validation and performance verification (C)

QMS 09.00 Information management: ensures the confidentiality, security, and integrity of generated and disseminated information

- Complies with policies, processes, and procedures for maintaining confidentiality of internally and externally derived information (C)
- Complies with policies, processes, and procedures to ensure the integrity of information (C)

QMS 10.00 Nonconforming event management: ensures that processes are in place for detecting and managing nonconforming events

- Investigates NCEs, including the creation of a corrective action plan (P)
- Reports discovered NCEs (C)
- Leads the process of investigating NCEs and performing root cause analyses (C)

- Responds to product recalls and technical bulletin notifications (C)

QMS 11.00 Assessments: ensures that processes are in place to perform internal audits and external assessments

- Ensures the application of the quality assessment plan to laboratory operations (C)
- Performs external assessment procedures (C)
- Performs internal audit procedures (C)
- Employs pre-examination, examination, and postexamination quality indicators (C)

QMS 12.00 Continual improvement: ensures mechanisms for continuous quality improvement

- Implements changes identified through the CQI program (C)
- Follows CQI processes and procedures for troubleshooting and documenting required CQI activities (C)
- Implements the processes and procedures related to corrective action (C)
- Implements the processes and procedures related to preventive action (C)

Emergency Management and Response (5%)

EMR 3.00 Responding to emergency events: responds to emergency events

- Produces information and documentation for briefings (C)
- Complies with procedures for responding to hazardous spills or potential exposures (C)
- Identifies creative strategies to manage surge or overflow testing (P)

Research (5%)

RES 2.00 Ethical conduct: ensures the ethical and responsible conduct of research

- Complies with policies, processes, and procedures related to ethical conduct in research (B)

RES 4.00 Testing methodology development: develops new testing methodology

- Proposes concepts for improved methodologies (P)
- Performs pilot testing, method validation, or performance verification (C)
- Implements new methodologies into laboratory practice (C)

Education and Experience Requirements:

- Bachelor's Degree in a life science [e.g., microbiology, biology, chemistry, biochemistry, clinical or medical laboratory science]
- Technologist or scientist certification such as MT(ASCP), MLS(ASCP), MT(AAB), M(ASCP) or C(ASCP) certification, or certification eligible with certification obtained within 12 months of hire
- 3 years of recent related laboratory work experience in a certified (e.g., CLIA, CAP, EPA, NELAC) clinical, public health or environmental laboratory
- Equivalent combinations of directly related education and experience may be considered on a case-by-case basis
- Requires passing a criminal background check prior to hire
- Requires security risk assessment approval under the Select Agent Program within 3 months of hire