



Intermountain Forensics

SOP #

ORG-209

Revision #

01

Forensic DNA Technical Leader Approval

Issue Date

11/28/2022

Position Summary: Director of Laboratory Operations

1. Purpose

To describe the roles and responsibilities of the position of the Director of Laboratory Operations within the organization and provide the minimum and preferred education, experience, certification, knowledge, skills, and abilities required for the position.

2. Summary

The Director of Laboratory Operations is responsible for implementing and overseeing all aspects of the laboratory's daily operations. This position performs managing responsibilities of personnel, performs casework management, and oversees casework in a manner which promotes the laboratory's culture, mission, and vision.

3. Procedure

Minimum Educational Requirements

1. Bachelor's degree in a natural, physical, or forensic science area
2. Successful completion of twelve semester (or equivalent) credit hours from a combination of the following subject areas:
 - a. Biochemistry
 - b. Genetics
 - c. Molecular Biology
 - d. Statistics and/or Population Genetics
3. Coursework with titles other than the above listed subject areas may be substituted provided it can be demonstrated to be compliant with the FBI's Quality Assurance Standards
 - a. Compliance and documentation may be demonstrated with pertinent materials such as:
 - i. Transcripts
 - ii. Syllabus
 - iii. Letter from the instructor
 - iv. Other relevant documentation that supports course content

Preferred Educational Requirements

1. Master's degree in a natural, physical, or forensic science area
2. Successful completion of one graduate level course registering three or more semester credit hours (or equivalent) in one of the following subject areas:
 - a. Biochemistry
 - b. Genetics
 - c. Molecular Biology
 - d. Statistics and/or Population Genetics
4. Coursework with titles other than the above listed subject areas may be substituted provided it can be demonstrated to be compliant with the FBI's Quality Assurance Standards
 - a. Compliance and documentation may be demonstrated with pertinent materials such as:
 - i. Transcripts
 - ii. Syllabus
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- iv. Other relevant documentation that supports course content

Minimum Experience Requirements

1. Five years of Forensic DNA laboratory experience:
 - a. Obtained at a laboratory where DNA testing was conducted for the identification and evaluation of biological evidence in criminal matters
 - b. Obtained as a **qualified** DNA analyst in human DNA testing on forensic samples
2. Two years of management and/or supervisory experience:
 - a. Obtained at a laboratory where DNA testing was conducted for the identification and evaluation of biological evidence in criminal matters

Minimum Training Requirements

1. Federal Bureau of Investigation Quality Assurance Standards (FBI QAS) auditor training
 - a. May be obtained within one calendar year of appointment to the position
2. ISO 17025 ANSI National Accrediting Board (ANAB) Technical Assessor (or equivalent)
 - a. May be obtained within two calendar years of appointment to the position

Preferred Certification

1. American Board of Criminalists (ABC) certification in an applicable field (or equivalent)
 - a. Applicable fields include Biological Evidence Screening (ABC-BIO), Forensic DNA (ABC-DNA), and Molecular Biology (ABC-MB)
2. Yellow Belt, Green Belt, or Black Belt in a Process Improvement methodology (i.e., Lean Six Sigma, Lean, Six Sigma, Total Quality Management)

Mandatory Roles and Responsibilities

1. Provide direct supervision of management level personnel
 - a. Monitor personnel issues, proceed with progressive discipline and/or mentor supervisors through the process
2. Act as a purchase agent for laboratory equipment, supplies, and reagents/consumables
3. Participate in the design and implementation of laboratory strategies, plans and procedures to align with the laboratory mission, vision, and culture
4. Oversee daily operations of the laboratory including:
 - a. Participation in process improvement, corrective action and/or preventative action as required
 - b. Perform all administrative duties that include QC documentation, etc.
 - c. Monitor laboratory metrics and key performance indicators
5. Participates in the Quality Management System including, but not limited to,
 - a. Support of the yearly management reviews concerning audit status, lab operations, and other pertinent items
 - b. Support of internal and external audits
 - c. Completion of staff authorization and oversight of competency testing
 - d. Support of the deviation, conflict resolution, and non-compliance processes, as required

Additional Roles and Responsibilities

1. Serve as the Forensic DNA Technical Leader during extended time periods when the position is vacant or the current Forensic DNA Technical leader is otherwise unavailable (vacation, illness etc.), if qualified
2. Perform the duties of a qualified Forensic DNA Analyst:



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- a. Perform scientific examination, all laboratory efforts, and DNA analysis of biological evidence collected in connection with death and criminal investigations, including comparison and interpretation of DNA profiles as well as statistical analysis as applicable
 - i. DNA interpretation and analysis (STR, SNP, NGS, mtDNA) required as needed
 - ii. Non-criminal casework (private DNA testing, research, genealogy studies etc.) may be required as needed
- b. Crafting and authorizing laboratory reports as a result of testing, interpretation and analysis
- c. Provide Forensic DNA technical and/or administrative peer review
- d. Testify as an expert witness in court proceedings
- e. Successfully complete proficiency testing requirements
3. Participate in validation processing and summary, as necessary
4. Participate in continuing education (workshops, training courses, conferences etc.) as per laboratory policy and applicable accreditation, certification, and FBI QAS requirements
 - f. Maintain documentation of above participation as per policy
5. Provide training to laboratory staff and external entities
6. Establish and maintain relationships with customers, vendors, and business partners
7. Maintain at least a minimum level of productivity as determined by scientific board for review
8. Adhere to all safety procedures and protocols as mandated by the laboratory management system

4. References

1. Federal Bureau of Investigation, "Quality Assurance Standards for Forensic DNA Testing Laboratories"
2. ISO/IEC 17025:2017 – Forensic Science Testing and Calibration Laboratories

5. Definitions

N/A