



Intermountain Forensics

SOP #

ORG-208

Revision #

02

Forensic DNA Technical Leader Approval

Issue Date

11/28/2022

Position Summary- Forensic Molecular Biologist

1. Purpose

To describe the roles and responsibilities of the position of the Forensic Molecular Biologist within the organization and provide the minimum education, experience, certification, knowledge, skills, and abilities required for the position.

2. Summary

The Forensic Molecular Biologist position runs the processing of laboratory samples to generate a result and feeds all generated information to the analysts. The position is responsible for interaction with clients (case consultations, evidence transfers), evidence intake and release and all laboratory functions.

3. Procedure

Minimum Educational Requirements

1. Bachelor's degree in a natural, physical, or forensic science area
2. Laboratory and/or crime scene experience may be substituted for a degree provided it has relevance to Forensic laboratory work such as:
 - a. Crime scene investigation
 - b. Evidence handling and chain of custody
 - c. Laboratory experience with:
 - i. DNA sequencing and/or fragment assay
 1. Next Generation Sequencing preferred
 - ii. RT-PCR assays
 - iii. DNA extraction assays
 - iv. Reagent preparation and or aliquoting using manual pipetting techniques

Minimum Experience Requirements

1. Three 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 mattersOr
2. Three years of Forensic Crime Scene experience
 - a. Obtained a law enforcement agency and/or crime laboratory

Mandatory Roles and Responsibilities

1. Assist agencies with evidence transfer
2. Evidence intake and evidence release
3. Review of submitted evidence
4. Processing of evidence
 - a. Serology, initial stage of cutting evidence and preparing it for extraction
 - b. Preparing reagents for the process of extraction, quantification, and amplification
 - c. Loading samples onto instruments



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5. Maintenance of instruments
6. Courtroom testimony
7. General Knowledge of Serology, Extraction, RT-PCR, PCR, Genetic Analyzers, and Sequencers
8. Reagent preparation, documentation, and storage
9. Knowledge and ability in all current laboratory testing protocols authorized to perform
10. Laboratory Information Management System (LIMS) use
11. Participates in the IMF proficiency testing program
12. Participates in implementing and maintaining the quality assurance and quality control program, as well as laboratory safety, to ensure the integrity of analytical testing and results.

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