



Intermountain Forensics

SOP #	ADM-107
Revision #	01

Forensic DNA Technical Leader Approval

Issue Date

6/3/20

Training

1. Purpose

To describe the training and competency required for staff

2. Summary

This protocol establishes the guidelines for training, re-training, and continuing education. The training program will provide the staff with the appropriate knowledge, skills, and training to perform testing, interpretation, or technical review.

3. Procedure

General

1. The DNA Technical Leader (DNA TL) must ensure the competence of all staff that operate specific equipment, perform tests, evaluate results, and sign test reports.
2. Training and the resulting authorization to perform unsupervised casework is based on individual methods.
3. The individual training required will be at the discretion of the DNA TL.
4. Training progression includes:
 - a. Learning About the Method
 - b. Observing the Method (Shadowing)
 - c. Practice on Mock Samples
 - d. Competency Test
 - e. Supervised Casework
 - f. Unsupervised Casework
5. Participation in method validations may be used as training at the discretion of the DNA TL

Training Instructions

6. The trainee is expected to keep accurate records of all training data.
7. All training records will be retained indefinitely.

Forensic Molecular Biologist Training

8. The Forensic Molecular Biologist training program may include:
 - a. Instrument maintenance
 - b. Reagent Preparation
 - c. Reagent Documentation
 - d. Reagent Storage
 - e. Assignment of Reagent Expiration Dates
 - f. Quality Assurance Documentation
 - g. Quality Control Measures
 - h. Laboratory Safety
 - i. Clean Technique
 - j. General Laboratory Duties
 - k. Requesting the Ordering of Supplies
 - l. Case Acceptance and Return Protocols
 - m. Laboratory Information Management System (LIMS)
 - n. Training in All Current Laboratory Testing Protocols
 - o. Evidence Handling
 - p. General Knowledge of Serology, Extraction, rtPCR, PCR, and Genetic Analyzers
 - q. Courtroom Testimony (when appropriate)
 - r. M-Vac sampling
 - s. Bone/Teeth processing

Analyst Training

9. The Analyst training program applies to all positions that are responsible for DNA analysis.



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10. Analysts will be trained in the DNA technologies, methodologies, and protocols currently used to the fullest extent of their participation in casework.
11. In addition to any required training in the Forensic Molecular Biologist section, the Analyst training program includes:
 - a. Reading assignments and laboratory validation data (where appropriate)
 - b. All current DNA protocols
 - c. DNA Interpretation Guidelines and Interpretation Records
 - d. All Statistical Methods in Use
 - e. Report Writing
 - f. DNA analysis on samples that reflect the range, type and complexity of casework including known or mock case samples.
 - g. Analysis Specific Courtroom Testimony
12. The Technical Leader will review and approve the training records and qualifications of newly qualified analysts prior to beginning independent case work analysis

Technical Reviewer

13. Individuals who have completed Analyst training and have been authorized to perform independent casework analysis may perform technical reviews based on individual analyst experience and comfort level.
14. Additional competency testing in technical review is not required.

New Technologies, Methods, or Interpretation Software

15. The training program for newly validated methods will be determined by the DNA TL and may include:
 - a. Theory
 - b. Technique
 - c. Review of laboratory protocol(s)
 - d. Review of validation studies and results
 - e. Bench work (demonstration and/or practical assignments)
16. At the end of the laboratory training a practical competency exam must be completed.

Re-Training

17. Retraining of an individual may be necessary as a result of an unsatisfactory result on a proficiency test, an extended absence from casework, as part of corrective or preventative action, or when determined as necessary by the DNA TL.
18. The DNA TL is responsible for evaluating the need for and assessing the extent of re-training.
19. A competency exam relevant to the task must be completed.

Technical Leader Training

20. When appropriate, a Technical Leader Training Program will be at the discretion of the Laboratory Director.
21. The newly appointed Technical Leader must be a currently or previously qualified DNA analyst in each technology used or have documented training in each technology used within one year of their appointment.
22. Newly appointed Technical Leaders must:
 - a. Undergo the FBI DNA Auditor Training Program within one year of being appointed, if necessary.
 - b. Review the validation studies and analytical procedures currently used by the laboratory in addition to the educational and training records of currently qualified analysts, including technical reviewers, within one year of appointment.

Training Records

23. All training records that verify the relevant authorization(s), competence, educational and professional qualifications, training, skills, and experience of all technical personnel, including contracted personnel will be maintained indefinitely.

Continuing Education

24. All qualified Forensic DNA analysts, Sr. Forensic DNA Analysts, Forensic DNA Supervisors, the Forensic DNA Technical Leader and Laboratory Director must receive a minimum of eight (8) cumulative hours of continuing education annually.



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- a. Forensic Molecular Biologists, Laboratory manager are strongly recommended to minimum of eight (8) cumulative hours of continuing education annually.
25. Must be in a subject area related to DNA analysis.
26. Reading of scientific literature and subsequent lab-sponsored discussions (e.g., journal club, article presentation) do not count toward continuing education hours.
27. Activities required as part of the laboratory's training program and/or that are required for establishing an individual's competency do not count toward continuing education hours.
28. Documentation of attendance at relevant trainings may be recorded through certificates, attendance lists, or travel documentation.
29. Documentation of content is not required for international, national, or regional conferences, meetings, or workshops.
30. Documentation of content is required when continuing education is obtained outside of international, national, or regional conferences, meetings, or workshops.
31. Documentation of content may be evidenced through an agenda, syllabus, record of presentation content (e.g. copy of the slides), or the CV of the presenter.
32. The Technical Leader must approve any multimedia/internet training prior to its designation as continuing education. Document the length of the training, content, as well as proof of completion.
33. It is the analyst's responsibility to acquire and maintain the necessary continuing education records.
34. Continuing education records are considered part of the analyst's training records and are kept indefinitely.

Bloodborne Pathogen Training

35. All laboratory personnel will receive Bloodborne Pathogen Training.

Safety Training

36. All laboratory personnel will receive training in Laboratory Safety.

Ethics Training

37. All Forensic Biology Unit personnel will receive ethics/human factors training as outlined in the Quality Assurance Manual.
 - a. This includes documented yearly review and agreement of all staff to adhere to the "Guiding Principles of Professional Responsibility for Forensic Service Providers and Forensic Personnel"

Courtroom Testimony Training

38. Courtroom testimony training is determined based on an individual basis.
 - a. The DNA TL will modify the training based on any previous experience.

4. References

ANAB Guiding Principles of Professional Responsibility for Forensic Service Providers and Forensic Personnel

5. Definitions

N/A