

LEAD FORENSIC SCIENTIST (DNA)
CS-401-14

INTRODUCTION

This position is located in the Department of Forensic Sciences (DFS). The mission of the DFS is to provide high-quality, timely, accurate, and reliable forensic science services using best practices and best available technology, focusing on unbiased science and transparency, to enhance public safety and health.

This position works under the Unit Manager/Technical Leader to ensure the technical aspects of the DNA Analysis program(s), particularly the intake, scheduling, and assignment of casework, remains in compliance with the Quality Assurance Standards for Forensic DNA Testing Laboratories established by the Federal Bureau of Investigation (FBI) and the international accreditation standards under ISO 17025.

MAJOR DUTIES

As a leader the incumbent is responsible for performing the following:

Ensures that the strategic plans, mission, vision and values are communicated to the employees and integrated into strategies, goals, objectives, work plans, etc.;

Articulates and communicates to the team, projects, problems to be solved, actionable events, milestones, and/or program issues under review, and deadlines and time frames for completion;

Coaches the employees in best practices to use in selecting and applying appropriate problem solving methods and techniques, provides advice on work methods, practices and procedures, and assists the team and/or individual members in identifying the parameters of a viable solution;

Leads the team in identifying, distributing and balancing the workload and tasks among employees in accordance with established work flow, skill level and/or occupational specialization; making adjustments to accomplish the workload in accordance with established priorities to ensure timely accomplishments and ensuring that each employee has an integral role in developing the final product;

Trains or arranges for training for the employees in methods and techniques of team building and working in teams to accomplish tasks or projects, and provides or arranges for specific administrative or technical training necessary for accomplishing individual and team tasks;

Monitors and reports on the status and progress of work, checking on work in progress and reviewing completed work to ensure that the Unit Supervisor's instructions, priorities, methods, deadlines and quality are being met or have been met;

Serves as coach, facilitator and/or negotiator in coordinating team initiatives and in consensus building activities among team members;

Maintains program and administrative reference materials, project files and relevant back-ground documents and make available policies, procedures and written instructions from the Unit Supervisor; maintain current knowledge to answer questions from team members on procedures, policies, directives, etc.;

Prepares reports and maintains records of work accomplishments and administrative information, as required, and coordinates the preparation, presentation and communication of work-related information to the Unit Supervisor;

Represents the team in dealings with the Unit Supervisor for the purpose of obtaining resources (e.g., computer hardware and software, use of overtime or compensatory time, etc.), and securing needed information or decisions from the Unit Supervisor on major work problems and issues that arise;

Reports to the Unit Supervisor periodically on team and individual work accomplishments, problems, progress in mastering tasks, work processes, and individual and team training needs;

Represents team consensus and conveys the team's findings and recommendations in meeting and dealing with other team leaders, program officials, the public and other customers on issues related to or that have an impact on the teams' objectives, work products and/or tasks;

Estimates and reports to the team on progress in meeting established milestones and deadlines for completion of assignments, projects and tasks, and ensures that all team members are aware of and participates in planning for achievement of team goals and objectives;

Researches, learns and applies a wide range of qualitative and/or quantitative methods to identify, assess, analyze and improve team effectiveness, efficiency and work products;

Leads the team in assessing its strengths and weaknesses and provides leadership to the team in exploring alternatives and determines what improvements can be made (e.g., in work methods, processes and procedures);

Approves emergency leave for up to three days; eight hours or less for medical appointments; and/or other types of leave as delegated by management;

Resolves simple, informal complaints of employees and refer others, such as formal grievances and appeals, to the Unit Supervisor or an appropriate management official;

Communicates team consensus and recommendations to the Unit Supervisor on team and individual awards, rewards and recognition;

Informs employees of available employee benefits, services and work related activities; and

Intercedes on behalf of the team to inform the Unit Supervisor of performance management issues/problems and to recommend/request related actions, such as, assignments, reassignments, promotions, tour of duty changes, peer reviews and performance appraisals.

DNA Responsibilities are as follows:

Examinations and reviews reports received from law enforcement agencies.

Completes and reviews advance research projects, and performs biology/DNA analyses on physical evidence; interprets and reviews test results and develops conclusions and prepares final reports/results.

Writes detailed reports to present final analysis and assists lower level Scientists with their analysis including the examination of DNA inventory.

Exercises discretion and sound judgment to determine proper courses of action and executes solutions for a variety of situations, problems, conditions or questions.

Ensures methodologies and procedures used are compliant with established standards, and is responsible for quality assurance and accreditation compliance activities.

Evaluates existing DNA methods and assists with proposing new analytical procedures; and ensures that all associated quality standards pertaining to ASCLD/LAB-International 17025-based accreditation status are being performed.

Inspects equipment and tools that are utilized for testing and to determine if they are compliant with prescribed operating and safety standards, regulations, and guidelines including manufacturer's specifications on computerized scientific equipment; interprets graphs, charts, and mathematical formulas.

Modifies or adapts standard processes and procedures, assesses, selects, and applies remedies suited to the assigned problem or situation; and assesses the impact of the same.

Works in conjunction with Unit Manager and occasionally with Scientists in other units to ensure accreditation standards are met.

Keeps up-to-date of current literature and sources of information in the field of forensics for DNA methods, including but not limited to all forms of microscopy, chemical analysis, etc.

Assists with modifying processes to resolve novel, obscure, or highly controversial problems that affect the analysis and assists with developing new standards and with identifying training needs and resource requirements for the organization.

Prepares evidence for presentation in court; meets with attorneys, investigators or other law enforcement personnel regarding the interpretation of examinations conducted; and projects a professional image while representing the Department; exemplify the Department values, both on and off duty.

Testifies in court as an expert witness in legal proceedings and in connection with the DNA collected, processed, developed and preserved.

Performs research to determine new and/or revise methods for performing analyses or to determine the effectiveness of current analytical methods.

Works collaboratively with investigators and other members of the justice system to analyze and interpret DNA evidence and information that is necessary to meet the objectives of the investigation.

Acts as initial point of contact in the absence of the Unit Manager and responds to inquiries and work processes as required.

Performs other related duties as assigned.

KNOWLEDGE REQUIRED BY THE POSITION

Expert knowledge of DNA, forensic laboratory accreditation, standards, and guidelines; extensive knowledge of the tools necessary to evaluate forensic quality processes; and the ability to assist with establishing new standards and with identifying training needs and resource requirements for the agency.

Mastery of and skill in applying DNA analysis principles and evaluative methods, techniques, theories, to lead and conduct in-depth research of operational/program issues; prepare and reviews clear in-depth reports of studies and recommendations; and ability to apply Federal, state and local laws, codes and regulations pertaining to forensic science and DNA.

Mastery of the principles of chemistry, physics, biology, physiology, and mathematics/statistics as they relate to forensic science and to analytical laboratory work.

Mastery of and skill in applying DNA analysis principles, techniques, methods, theories, concepts, practices, and standards; and ability to apply Federal, state and local laws, codes and regulations pertaining to forensic science and data management.

Mastery of and skill sufficient to establish and monitor quality control in the Forensic Biology Unit as well as an in-depth knowledge of the principles, techniques, and instruments to determine quality control measures needed to control samples, to respond to proficiency testing programs and to establish and maintain copious record keeping systems.

Mastery of forensic laboratory accreditation, standards, and guidelines; and of the tools necessary to evaluate the evidence and the ability to assist with developing new standards and with identifying training needs and resource requirements for the organization.

Mastery of new analytical developments, and ability to modify processes to resolve novel, obscure, or highly controversial problems that affect the analysis.

Mastery knowledge of, and skill in applying analytical and evaluative methods and techniques to conduct in-depth research of operational/program issues; to review and analyze complex reports; to develop necessary plans; and to prepare clear, in-depth reports of studies and recommendations.

Mastery research skills, interpretation, and application of a broad range of qualitative and quantitative data using a variety of diverse methods.

Expert knowledge of quality assurance and quality improvement methods and techniques; and knowledge of accreditation standards and quality processing methods that are crucial as well as beneficial to the quality assurance program.

Ability to keep up-to-date of current literature and sources of information in the field of forensics for analytical methods, including but not limited to all forms of microscopy, chemical analysis, and instrumental analysis of a wide range of evidence.

Knowledge and experience of automated DNA systems which might include Tecan Evo and Qiagen QiaSymphony robots, or similar robotic platforms.

Expert knowledge of evidence collection, preservation and chain of custody laws, rules, policies and procedures to ensure evidence integrity, and expertise of safety practices and procedures as they apply to

analyses in the laboratory; and knowledge of the rules of evidence and methods used in presenting evidence in court.

Ability to work well both independently and as part of a professional management team in a multi-cultural workplace and interpersonal skills is required to work effectively with a diverse staff, external agencies, and the public; and the ability to work safely without presenting a threat to self and others is essential.

Expertise in modifying or adapting standard processes and procedures, assesses, selects, and applies remedies suited to the assigned problem or situation; and assesses the environmental impact of various practices.

Excellent oral and written communications skills sufficient to prepare and present pertinent information and research involving complex workforce development policies and initiatives, and to effectively represent the agency at conferences, meetings and consultations with agency managers, employee groups, and special interest groups concerning program objectives and issues and public relations; and ability research complex forensic examinations.

Demonstrated skill and ability to use a PC and software packages (e.g., Microsoft Word, Excel, Access and Power Point, etc.) and software applicable to various reporting systems, particularly laboratory information management systems (LIMS), inventory control, and spectral analysis software.

Ability to testify effectively in court as an expert witness in legal proceedings.

SUPERVISORY CONTROLS

Works in a supervisory role under the Unit Supervisor, who provides administrative direction and technical oversight in terms of techniques, desired results, changes in regulatory constraints and, or methods and procedures that may apply to complex situations. Reviews the validity of test methods and results and recommends acceptance or rejection of evidence items. Consults with Unit Manager on unusual technical problems, best practices, and keeps the staff apprised of any controversial issues.

Completed assignments are reviewed for conformance to guidelines, deadlines, and expected results and adherence to requirements.

GUIDELINES

Guidelines include policies and procedures of DFS, including but not limited to the standard operating procedures developed by the DNA Unit through the validation of analytical procedures; governing laws and regulations of the District and Federal government, Mayor's Orders, instructions, and the Deputy Mayor's policy and priorities. Incumbent exercises sound judgment in choosing, interpreting, or adapting available standards and guidelines to specific issues or subject. Many situations are not covered by the guidelines, and therefore, require interpretation and adaptation.

Sound judgment is exercised when selecting, interpreting, or adapting available standards and guidelines to specific work situations and/or cases, however, many situations are not covered by the guidelines, and therefore, requires extensive interpretation and adaptation or research.

COMPLEXITY

Adaptability and flexibility is required in order to adhere to protocols is essential; develops and validates criteria for testing parameters with new methods and equipment as well as training team members to

perform the same. Maintains quality control measures and prepares detailed documentation of test results. Provides appropriate leadership in the application of procedures; and identifies problems and anticipates discrepancies in the results. The work requires assessing, evaluating, modifying and adapting various methods to satisfy requirements and to arrive at sound conclusions.

Decisions regarding what needs to be done include major areas of uncertainty in approach, methodology, or interpretation and evaluation processes that result from such elements as continuing changes in program, technological developments, unknown phenomena, or conflicting requirements.

SCOPE AND EFFECT

The work involves performing and leading a team in isolating and defining unknown conditions, resolving critical problems, or developing new theories, technical adequacy, and effectiveness of submitted evidence. Conducts and assists team members when required to perform analysis including collecting appropriate exhibits to prepare for examination/testing; and prepares documentation regarding findings and analysis that are instrumental in preparing results of the tests; and identifying problems that may alter the materials; and ensures that all documentation is in the appropriate order for court cases and/or final discovery.

The result of the work may affect other experts and/or the department's credibility adequacy, accuracy and effectiveness of the field investigations, and laboratory tests, and ensures its relevancy to each to assist with closure. The results are also binding and affect judicial proceedings.

PERSONAL CONTACTS

Contacts are with DFS officials, employees, laboratory personnel, consultants, Federal and District regulatory agencies, the general public, law enforcement, and investigators, and other stakeholders.

PURPOSE OF CONTACTS

Contacts are for the purpose of influencing and motivating persons or groups in order to obtain the desired effect, such as gaining compliance with established policies and regulations by persuasion or exchanging and gathering information, ensuring the orderly flow of work as it pertains to maintaining the chain-of-custody of collected evidence, and storage, and to prepare detailed reports.

PHYSICAL DEMANDS

Work is sedentary, however, some work requires periods of walking, standing, bending, stretching etc. Also, some work requires sufficient personal agility to possibly collect and process evidence at a variety of crime scenes. The incumbent may occasionally carry items weighing up to 50 pounds, such as bags and/or boxes of evidence, portable computers, peripherals, and other similar materials and must possess sufficient manual dexterity to manipulate and operate laboratory equipment; must be able to visually distinguish color, shape, size, number and picture resolution quality; and must be able to withstand exposure to disagreeable elements such as malodorous and/or decomposing samples/bodies, blood, bodily fluids, etc., that may pose a health risk.

WORK ENVIRONMENT

The work is performed in an office and laboratory. The office setting is when preparing documentation, and the laboratory setting is during the testing and analysis phase.

The incumbent may be exposed to hazardous materials, toxic substances, blood borne pathogens, and electric current and electrostatic discharge and is required to follow safe laboratory practices and wear protective clothing, including facial masks, safety glasses, gloves, ear protection, etc.

OTHER SIGNIFICANT FACTS

Required to successfully complete competency testing prior to beginning technical work on any equipment or instrument in a specialty discipline or sub-discipline.

The nature of the work in the Forensic Science Laboratory requires safe handling and processing of chemicals and reagents within the laboratory, and standard health and safety processes must be constantly demonstrated and reinforced.

Bachelor's degree from an accredited college or university in science; or a higher degree and/or industry certification favorably considered.

May be required to work weekends and holidays.

SPECIAL REQUIREMENTS

This position's duty station will be housed within the Consolidated Forensic Laboratory (CFL) which is a protection-sensitive facility. As such, incumbents of this position shall be subject to criminal background checks, background investigations, and mandatory drug and alcohol testing, as applicable. Due to the handling of primary evidence, the applicant will be required to submit a buccal swab for the purposes of the DNA Quality Control database for the DFS.

The nature of the DFS mission necessarily involves the potential risks associated with biological or chemical hazards, including morgue functions. Although contact with these functions is intended to be minimal, the risks are nevertheless possible; training to recognize, address, and mitigate these risks is required as is dealing with potentially personally difficult topics, such as crime, death, and disease.