



January 2019  
Class Code: A-58  
FLSA: Non-Exempt

## **MICROBIOLOGIST**

### **DEFINITION**

Under direction, conducts technical laboratory testing and analysis and performs biological testing procedures pertaining to arthropod-borne diseases and other vector-borne diseases collecting, processing, and maintaining serum and specimens for testing; performs quality assurance and quality control for all laboratory testing; and performs related work as required.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives direction from the Director of Scientific Technical Services. Exercises no direct supervision over staff.

### **CLASS CHARACTERISTICS**

This qualified journey-level classification is responsible for performing the full range of testing and analysis duties within a specialized scientific program area, working independently and exercising judgment and initiative. Positions at this level receive only occasional instruction as new or unusual situations arise and are fully aware of the operating policies and procedures of the work unit.

### **EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)**

*Job functions and performance are subject to provisions contained within the Personnel and Salary Resolution and Memorandum of Understanding applicable to the specified job classification. Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.*

- Performs analysis by appropriate protocol procedures of blood sera and other biological specimen samples for the presence or evidence of arthropod-borne encephalitis viruses, plague bacilli, and other vector-borne disease-causing microbial organisms.
- Performs dissections and makes evaluations of tick specimens to detect the presence of disease using appropriate materials and methods.
- Assists in field specimen collection and processing techniques and logistics in the procurement of arthropod specimens; ships and receives specimens to/from outside sources.
- As assigned by management, provides technical and functional direction to part-time and seasonal staff; reviews and controls quality of work; trains employees in work methods, use of tools and equipment, and relevant safety precautions.
- Provides staff education and training related to laboratory testing and ensures compliance with Federal and State mandated regulations and standards as they are updated or changed.

- Performs quality assurance and quality control for all laboratory testing; maintains laboratory equipment; schedules preventative maintenance, safety checks and servicing; ensures proper disposal of waste materials.
- Maintains and orders laboratory and testing supplies and agents.
- Updates standard operating procedures and testing protocols.
- Maintains detailed and accurate records of laboratory activities, testing, and results; produces a variety of reports and correspondence.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- Concepts and principles of microbiology.
- Principles and practices of quality assurance and quality control within a testing and laboratory environment.
- Methods of transmission, diagnosis, and development of arthropod-borne and other vector-borne diseases.
- Scientific methods and protocols used in the laboratory for the detection and identification of disease agents.
- Purpose and operational characteristics of a diverse range of laboratory equipment.
- Research techniques and investigative methods including data interpretation and biostatistics.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned areas of responsibility.
- Record-keeping principles and procedures.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

### **Ability to:**

- Conduct a diverse range of testing protocols to identify the presence of disease bearing agents.
- Prepare clear and concise scientific and technical reports, correspondence, and other written materials.
- Conduct research and prepare findings and recommendations.
- Perform quality assurance and control on laboratory operations.
- Ensure reliability and accuracy of laboratory equipment through scheduled maintenance and calibration.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and

standards relevant to work performed.

- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

### **Education and Experience:**

*Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:*

Equivalent to bachelor's degree from an accredited college or university with major coursework in microbiology or a related field; and two (2) years of clinical or research laboratory testing experience.

### **Licenses and Certifications:**

- Possession of, or ability to obtain, a valid California driver's license by time of appointment.
- Possession of, or ability to obtain, certification in Public Health Vector Control Categories A – D, as required by the California Department of Public Health, within one year of appointment and maintained throughout employment with the District.

### **PHYSICAL DEMANDS**

When assigned to an office and laboratory environment, must possess mobility to work in a standard office and laboratory setting and use standard office laboratory equipment, including a computer and diverse testing equipment; vision to read printed materials and a computer screen and to operate a motor vehicle to visit various District and meeting sites; and hearing and speech to communicate in person and over the telephone; ability to stand and walk between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information.

When assigned to field work, must possess mobility to work in changing site conditions; possess the strength, stamina, and mobility to perform light to medium physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; to reach, twist, turn, kneel, and bend and to operate a motor vehicle and visit various district sites; vision to observe biological and environmental conditions. The job involves fieldwork requiring frequent walking in operational areas to provide surveillance and environmental analysis, with exposure to hazardous materials in some site locations. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 40 pounds, or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.

Employees must wear and use the proper Personal Protective Equipment (PPE).

### **ENVIRONMENTAL CONDITIONS**

Employees work in an office and laboratory environment with moderate noise levels, controlled temperature conditions, and direct exposure to hazardous physical substances within the laboratory. Employees also work in the field and are exposed to loud noise levels, cold and hot temperatures,

inclement weather conditions, mechanical and/or electrical hazards, vermin, insects, parasites, and hazardous chemical substances and fumes. Employees may interact with members of the public or with staff under emotionally stressful conditions while interpreting and enforcing departmental policies and procedures.