

MICROBIOLOGIST TECHNICIAN INTERN

Job Description

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This Microbiologist Intern will be working with Microbiologist Technician in the laboratory performing RNA extractions and real-time PCR on mosquito pools, looking for West Nile, St. Louis Encephalitis and Western Equine Encephalitis viruses. The microbiologist intern uses standard microbiological tests or examinations which require judgment and skill in familiar or repetitive types of samples.

Under general direction of the Microbiologist Technician, the Microbiologist Intern will need assist in all lab operations, mosquito surveillance and mosquito processing for testing purposes; work with employees engaged in mosquito surveillance operations and do related work as required. Operate any and all of the lab equipment and surveillance equipment as directed. Make investigations and inspections as may be required to determine both the needs and the effectiveness of trapping and surveillance operations.

Characteristics:

Should have a wide knowledge of lab technique, procedures and lab organization. Be able to use logic to analyze or identify underlying principles, reasons, or facts associated with information or data to draw conclusions. Be able to enter, transcribe, record, store, or maintain information in both written and electronic form. Evaluate information against a set of standards and use scientific instruments and equipment to make a decision or solve a problem by using logic to identify key facts, explore alternatives, and propose quality solutions. Use laboratory techniques, safety practices, principles, theories, and practices of microbiology to propose mosquito control actions. Must review and/or edit documents for accuracy and completeness. Will compose and produce reports, documents, analyze operating records and related material and communicate information and ideas clearly, and concisely, in writing; read and understand information presented in writing. Will gain a thorough knowledge of state and federal regulations and requirements dealing PCR arbovirus testing and results. Will gain a general knowledge of mosquito ecology, biology, and identification. Must have the ability to work effectively and cooperatively with superiors, subordinates, or other employees, and the public; and evaluate situations accurately and adopt an effective course of action.

Examples of Duties:

1. Administers/conducts tests or examinations and/or evaluates results.
2. Analyze and test items. Interpret results and/or implement changes.
3. Interprets, clarifies, explains and applies agency policy and procedures, business practices, federal or state laws and regulations, etc.
4. Maintains technical data, generates reports and findings and defends analytical work during hearings or litigation.

5. Reviews data, records and files for detail and accuracy. Maintains accurate records and logs. Reviews and/or inspects work for quality, accuracy, and completeness.
6. Prepares specimens for laboratory analysis by preparing media, solutions, and reagents.
7. Ensures compliance with applicable federal and/or state laws, regulations, and/or agency rules, standards and guidelines, etc.
8. Provides technical assistance on agency issues, services, program(s), and/or computer hardware and software, etc.
9. Help implement plans and organizes lab testing and surveillance operations in conformance with and to achieve the program objectives, methods and findings determined by the Microbiologist Technician.
10. Assist in the identification and cataloging of mosquito trap collections.
11. Assist in public relations resulting from lab test results and surveillance operations; calls on property owners and others concerned and explains the Districts program and solicits property owners' cooperation in vector control.
12. Based on lab results and surveillance data; will work with staff to Coordinate air and ground spray operations.
13. Will participate in reviews and evaluates effectiveness of air spray operations and takes appropriate action as indicated.

Minimum Qualifications:

Must be physically able and willing to do physical labor; motivated to project an excellent impression on subordinates; have a valid Utah Drivers license, have or be able to obtain a non-commercial pesticide applicators license from the State of Utah Department of Agriculture within 6 weeks of hire; have an equivalent to a high school education; formal training (university type classroom setting) in microbiology or medical technology; coursework covering microbiology, mathematics, statistics, biological sciences and chemistry. Current knowledge of laboratory procedures and equipment expected. Previous laboratory experience is recommended.

Preferred Qualifications:

Education in Medical Laboratory Technology, Biological Sciences/Microbiology. One year of related microbiology experience or equivalent combination of education and work experience. Experience with aseptic technique, general microbiological principles (DNA/RNA extraction/RT-PCR/ electrophoresis), and bacterial/virus handling (non-pathogenic or pathogenic). Experience with advanced molecular biology/microbiology techniques (primer design/sequencing analysis) is preferred.