WASHINGTON STATE DEPARTMENT OF PERSONNEL

53320

Specification for Class of

MICROBIOLOGIST 2

Abolished Effective July 1, 2007

Definition: Performs assignments in one or more microbiological subdisciplines such as bacteriology, mycology, mycobacteriology, milk and water bacteriology, enteric bacteriology, virology, or serology; OR functions in the following capacities: 1) in the Department of Agriculture, works in a laboratory which is used as a standards reference by other public or private laboratories, adapts, establishes, and/or evaluates laboratory procedures for tests performed by their subordinates or themselves; OR, 2) in the State Public Health Laboratory works in a laboratory which is used as a standards reference by other public or private laboratories; performs assignments in one or more of the above microbiological subdisciplines.

Distinguishing Characteristics: Positions in this class are filled by experienced, professional microbiologists whose assignment may be limited to one or two subdisciplines, or encompass many of them, and perform standard procedures under general supervision. Erratic or atypical findings, or findings of unusual import would usually be discussed with a supervisory or consulting microbiologist.

Typical Work

Establishes procedures for the tests performed within one or more laboratory functional units; prepares detail manuals of all tests performed; establishes quality control standards for the tests performed; has signatory responsibility for results being reported from the laboratory unit;

Performs microscopic, serological and biochemical procedures on bacteria referred by private or public laboratories for initial identification or confirmation; compiles and maintains records of the characteristics of the organisms identified;

Processes a variety of clinical specimens to identify pathogenic bacteria; processes nose and throat cultures to identify such organisms as Group A beta hemolytic streptococcus, Corynebacterium, diptheria, genital specimens for gonococcus; makes preliminary identification on the basis of gross morphology, microscopic examination, and biochemical tests;

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Isolates and identifies organisms causing food poisoning by using cultural, biochemical, and microscopic analyses; determines toxicity levels in shell fish; tests for botulism toxines in foods by special and specific preparations of materials and intraperitoneal injections into mice;

Analyzes blood, tissue and fecal specimens to identify parasites such an anaplasma, roundworms, mites, and coccidia;

Cultures, isolates and identifies M. tuberculosis and related organisms; performs growth rate studies, pigment production studies, biochemical tests and animal inoculation for the purpose of identifying mycobacteria;

Isolates and identifies bacteria responsible for localized intestinal and systemic diseases such as typhoid fever; analyzes fecal and urine specimens to identify salmonella, shigella or enteropathogenic E. coli; sends reports to submitting physician or laboratory;

Performs plate counts, coliform counts, somatic cell counts, antibiotic tests, phosphatase tests on dairy and food samples;

Adopts known methods and procedures to Public Health Laboratory use;

Supervises other laboratory personnel within the limitations of the laboratory unit, maintains the flow and quality of the work to assure its timeliness; makes day-to-day adjustments in accordance with established priorities; instructs Microbiologists 1, Laboratory Technicians or Assistants in specific tasks and job techniques;

Serves in training programs for students in microbiology, medical technology or medicine; explains, discusses and demonstrates proper microbiological procedures;

Supervises the analysis of suspect animal tissues for rabies virus; works with special reagents containing live rabies virus;

Supervises and performs mouse inoculations and uses serological procedures such as complement fixation (C-F) hemagglutination-inhibition (HI) neutralization and ELIZA to diagnose or determine the presence of viruses;

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Supervises and performs bacteriological testing of foods, waters and food-related specimens suspected of causing food-borne illness or for determining their bacteriological quality;

Supervises and performs screening tests for genetic disorders such as PKU, Sickle Cell Anemia and Congenital Adrenal Hyperplasia (CAH);

Supervises and performs Mouse Bioassay and HPLC testing on shellfish to determine the presence of Paralytic Shellfish Poisoning (PSP) toxins;

Supervises and performs specialized testing for salmonella, typhoid, shigella, cholera and other enteric organisms causing intestinal disease;

Supervises and performs serological techniques of syphillis, chlamydia, bacterial antigens and antibodies;

Supervises and performs definitive identification or organisms that cause local or systemic disease such as diptheria, meningitis, fungi, legionlella, etc.;

Maintains leptospira cultures and prepares letospira antigens of several serotypes for leptospirosis serology;

Determines proper disposition of tissue specimens to ensure a rapid diagnosis of pathogens;

Performs other work as required.

Knowledge and Abilities

Knowledge of: pathogenic bacteria, viruses and rickettsia; serologic diagnosis; water and milk bacteriology, virology, and chemistry; parasitology; mycology; immunology; laboratory terminology, techniques, and equipment; standard analyses and microscopic examinations used in diagnosis of communicable diseases; microbiology research methods and requirements; report preparation; sources of data on current microbiology research.

Ability to: supervise and train others; perform laboratory analyses and microscopic examinations; understand and follow oral and written instructions and formulae; make standard tests with professionally reliable results; read tests and interpret results;

adapt tests described in professional journals to use in the laboratory.

Minimum Qualifications

A Bachelor's degree with a major in microbiology or a major in another laboratory science provided that at least 20 semester or 30 quarter credit hours in microbiology are included.

AND

Two years of professional experience in a microbiology laboratory.

A Master's degree in one of the aforementioned fields may be substituted for one year of experience.

A Ph.D. degree in one of the aforementioned fields may be substituted for two years of experience.

Employee shall be advanced to Microbiologist 2 after completing two years of satisfactory services as a Microbiologist 1 in State service.

Note: Selective certification will be allowed for candidates whose specialized experience is in the same microbiological subdiscipline as the position to be filled.

Revised definition, distinguishing characteristics and minimum qualifications: 7-14-72
Revised distinguishing characteristics: 2-9-79
Revised definition, distinguishing characteristics, minimum qualifications and general revision: 3-15-85
Revised definition, distinguishing characteristics and minimum qualifications: 8-15-86