

A. MAJOR DUTIES

Typical, but not all-inclusive, duties are illustrated by performance of any combination of the following:

Performs experiments which are designed to provide answers for specific research problem areas.

Conducts limited research projects and assignments in the assigned areas.

Selects the appropriate methods and procedures and/or devises and recommends alternative methods of standardized analysis to solve problems.

Performs the analyses and tests using a variety of laboratory equipment and instruments.

Assists in the preparation of scientific reports and manuscripts by reporting findings from experiments conducted.

Conducts literature searches for information relevant to research methodologies, procedures and techniques.

Records and calculates results, tabulates data, and performs elementary statistical calculations of means, standard deviations, standard errors, and coefficient of variations.

Maintains official laboratory notebook in accordance with good laboratory practices.

Maintains cleanliness and general housekeeping in the laboratory including maintenance of supplies and materials.

Maintains equipment and instrumentation in top working condition, performing routine preventative maintenance and minor repairs, and promptly reporting signs of malfunction or need for major repairs.

Prepares and maintains tissue culture collection.

Identifies cultures; performs purification assays.

B. Evaluation Factors

I. Knowledge Required by the Position (FLD 1-6: 950 points)

Professional knowledge of the principles, theories, and practices of microbiology, chemistry, and physics; may include mathematics and calculus.

Ability to recognize problems of a microbiological nature; make pertinent observations; apply the procedures and techniques in common use in the area of

assignment with increasing skill; and draw tentative conclusions from the laboratory observations as to the cause of these problems.

Skill in calibrating and operating standard and sophisticated analytical instrumentation and equipment.

Skill in evaluating established methods and making minor modifications.

2. Supervisory Controls (FLD 2-2: 125 points)

Supervisor provides continuing assignments, sets objectives, and indicates priorities and provides technical direction. The supervisor provides additional, specific instructions for new, difficult, or unusual assignments including suggested work methods or advice on source material available.

The incumbent is responsible for independently completing recurring projects but refers deviations or problems not covered by instructions to the supervisor. Results are not checked in detail except when reported observations are

Completed work is reviewed for adherence to instructions, established laboratory procedures, and technical soundness of results. New or unusual assignments may be reviewed in progress.

3. Guidelines (FLD 3-2: 125 points)

Guidelines are the technical literature and precedents that are applicable to the work. These guides do not always specifically apply to the work.

Incumbent must exercise judgment in selecting the most appropriate guides and references and must adapt established precedents to the specific requirements and problems of the work.

The incumbent analyzes the results to ensure that the changes are valid and may recommend and implement further changes. Situations to which the existing guidelines cannot be applied or significant proposed deviations are referred to the supervisor.

4. Complexity (FLD 4-3: 150 points)

Assignments involve a variety of limited, unrelated research tasks. Judgment and initiative are required in planning details of work, deciding how to collect and present results, determining methods and techniques to use and making minor modifications.

The incumbent must consider various factors such as the biological, chemical and physical properties of the sample, the information sought, and the expected

composition and properties of the substances in order to select from established alternatives the appropriate procedures to be adapted and applied.

5. Scope and Effect (FLD 5-2: 75 points)

The work involves performance and development of specific experiments, analyses and measurements in support of the research project objectives.

The results of the work affect the scientific adequacy and accuracy of the research project.

6. Personal Contacts and Purpose of Contacts (FLD 1a: 30 points)

Personal contacts are principally with scientists within the immediate work unit or other laboratories within the location. Occasionally, contacts with scientists outside the location may be required.

Contacts are for the purpose of obtaining, clarifying, or exchanging information, receiving instructions, or reporting progress and results of work.

8. Physical Demands (FLD 8-2: 20 points)

The work sometimes requires standing for prolonged periods of time.

9. Work Environment (FLD 9-2: 20 points)

Work is performed primarily in a laboratory. Incumbent is exposed to irritant chemicals on an irregular basis; on such occasions, special safety precautions are required and the microbiologist uses protective clothing and gear such as laboratory coat, safety glasses and gloves.

C. OTHER CONSIDERATIONS (Check if applicable)

- Supervisory Responsibilities (EEO Statement)
- Training Activities - Career Intern, Student Career Experience Program
- Motor Vehicle or Commercial Driver's License Required
- Pesticide Applicators License Required
- Safety/Radiological Safety Collateral Duties
- EEO Collateral Duties
- Drug Test Required
- Vaccine(s) Required
- Financial Disclosure Required
- Special Physical Requirements/Demands
- Other:

TOTAL POINTS: 1,485 points
(GS-7 Range: 1,355 – 1,600 points)

September 26, 1996