University Classification:  Environmental Laboratory Specialist
Job Code:  PHB2  Pay Level:  4A
Position #:  00266150  Org/Dept/Sub-dept #:  90-9050-00120
Position Reports to:  Ryan Jepson  Position #:  00012966

Position Specific Summary:
The State Hygienic Laboratory in Coralville is looking for an Environmental Laboratory Specialist (PHB2). This position will prepare and analyze samples, review instrument output and report results of environmental and/or food samples. As skills and experience are appropriate, this position will be responsible for the qualitative and quantitative analysis and method development for the determination of SARS-CoV-2 and other pathogens in human wastewater. Additional duties may include environmental sample analysis and method development, as needed, in support of SHL grant, contract and fee-for-service operations, specific project management, project quality oversight and report preparation. Finalist must be available to work some weekends and more than an 8 hour workday as needed.

Position Status:  1 Year Specified Term.

Work Schedule:  Mon-Fri 8:00a.m.-5:00p.m; rotating weekend hours.

Key Areas of Responsibilities and Specific Job Tasks

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<tr>
<th>Classification</th>
<th>Specific Job Duties and Tasks</th>
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<td>Key Areas of Responsibility</td>
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| Sample / Specimen Preparation and Analysis | • Perform sample accessioning within established holding times and evaluate samples for acceptability  
• Responsible for organizing, performing, scheduling work for complex microbial tests (molecular based wastewater testing).  
• Lead and participate in research and development projects.  
• Perform weekend/on call coverage for Environmental Microbiology section.  |
| Instrumentation and Technology | • Oversee daily operation of laboratory instruments and equipment to examine specimens/samples according to test requests by approved, validated methods and to obtain accurate results following laboratory policies and procedures, regulatory protocols and good laboratory practices in an ethical and confidential manner.  
• Ensure calibration and preventive maintenance activities are performed on analytical instruments including but not limited to ABI 7500 Fast DX, QXOne droplet digital PCR, QIAcuity digital PCR instrument while adhering to standard laboratory quality, safety and operating procedures.  
• Research and recommend equipment and instruments for analytical services area.  |
| Data Analysis, Reporting and Documentation | • Prepare and review technical reports and communicate results to relevant personnel.  
• Document and review complex analytical procedures, results and reports; interpret, process and report results in laboratory information management system (LIMS).  
• Provide secondary data review and confirmation of others’ analytical work.  
• Write new standard operating procedures as needed; review and update existing standard operating procedures in a timely manner to comply with SHL quality management goals.  
• Prepare test validation/verification reports.  |
| **Quality Control, Quality Assurance and Quality Systems** | • Document and review routine data analysis, procedures, and results.  
• May prepare documentation for test validation reports.  
• Review, trend, and report quality control data and assure quality assurance procedures are in accordance with established policies.  
• Identify and implement corrective and process improvement actions.  
• Document and review data analysis, procedures, and results.  
• Release data and reports after review of results and analysis of quality control. |
| **Outreach and Communication** | • Engage in routine interaction with clients and local agencies and provide clarification of test results as necessary.  
• Assist in the creation and design of outreach materials and participate in presentations to local environmental and general interest groups.  
• Prepare manuscripts for publication when results warrant dissemination of new information.  
• Collaborate with external clients/stakeholders/researchers and provide scientific advice. |
| **Administration** | • Adhere to certification standards, rules and or, regulations necessary to maintain compliance with regulatory agencies.  
• Organize and maintain laboratory records. |
| **Leadership / Human Resources** | • Serve as technical expert for specific instrumentation and test/method combinations.  
• Provide direction, assignments, feedback, coaching and counseling to assure outcomes are achieved.  
• Provide input on HR activities such as recruitment and promotion. |
| **Financial Responsibility** | • Initiate purchasing requests for supplies, equipment, etc.  
• Assist in budget development and review. |
| **Universal Competencies** | **Collaboration/Positive Impact**  
Ability to work with a variety of individuals and groups in a constructive and civil manner and utilize existing resources and learning to achieve or exceed desired outcomes of current and future organizational goals/needs.  
**Diversity, Equity and Inclusion**  
Ability to work with a variety of individuals and groups in a constructive and respectful manner while appreciating the unique contribution of an inclusive workforce that brings together the talents of people across multiple identities, including: race, creed, color, religion, national origins, age, sex, pregnancy, disability, veteran or military status, sexual orientation, gender identity, or associational preferences.  
**Service Excellence/Customer Focus**  
Ability to meet or exceed customer service needs and expectations and provide excellent service in a direct or indirect manner. Ability to effectively transmit and interpret information through appropriate communication with internal and external customers. |
| **Technical Competencies** | **Interpersonal Relationships (Working)**  
• Collaborates with departmental associates and management.  
• Adapts interaction style to situations and people.  
• Identifies roles and responsibilities for self and others.  
• Demonstrates an understanding of alternative points of view.  
• Explains impact of interactions with individuals and groups.  
**Laboratory Equipment Operation (Extensive)**  
• Operates and calibrates equipment in diverse laboratory environments.  
• Advises on diagnosing and resolving laboratory equipment malfunctions.  
• Oversees laboratory equipment quality recordkeeping.  
• Establishes risk-based criteria to evaluate laboratory equipment performance.  
• Establishes laboratory emergency response protocols and their rationale. |
### Laboratory Practice Quality Assurance (LPQA) (Working)
- Examines laboratory sample collection, handling and analyzation procedures.
- Operates quality testing equipment and verifies collected data.
- Adheres to related guidelines, regulations, standards and safety procedures in the LPQA process.
- Handles actual or potential problems that affect the analytical results of an LPQA program.
- Assesses laboratory equipment calibration and maintenance at various LPQA stages.

### Laboratory Results Analysis and Reporting (Working)
- Makes a systematic comparison of actual test results against expected results.
- Analyzes the accuracy of laboratory data and test results; assesses common problems and/or errors that can occur.
- Detects and summarizes test results and findings by producing reports.
- Interprets and explains results of data and test results.
- Reviews the results to ensure the quality and accuracy of data gathering and analysis.

### Laboratory Testing (Extensive)
- Supervises specimen/sample collection and processing for various test requests consistent with standard operating procedures, cGLP or other regulations.
- Trains others on the appropriate operation of laboratory equipment; addresses safety issues.
- Oversees the testing/examination of specimens/samples per testing SOP, cGLP or other regulations.
- Evaluates the accuracy of results obtained from laboratory tests.
- Recommends solutions to improve existing procedures of laboratory tests.
- Directs relevant policy, regulatory and ethics compliance for all laboratory tests.

This description is intended to indicate the kinds of tasks and levels of work difficulty that will be required of positions that will be given this title and shall not be construed as declaring what the specific duties and responsibilities of any particular position shall be. It is not intended to limit or in any way modify the right of any supervisor to assign, direct, and control the work of employees under his or her supervision. The use of a particular expression or illustration describing duties shall not be held to exclude other duties not mentioned that are of similar kind or level of difficulty.

As part of performing the key areas of responsibility and competencies described above, staff members are expected to meet reasonable standards of work quality and quantity, as well as expectations for attendance established by their supervisor. Staff members are also expected to comply with policies governing employee responsibilities and conduct, including those contained in the University Operations Manual.

**Proficiency levels are defined as:**

**Basic Application** - Uses basic understanding of the field to perform job duties; may need some guidance on job duties; applies learning to recommend options to address unusual situations.

**Working Experience** - Successfully completes diverse tasks of the job; applies and enhances knowledge and skill in both usual and unusual issues; needs minimal guidance in addressing unusual situations.

**Extensive Experience** - Performs without assistance; recognized as a resource to others; able to translate complex nuances to others; able to improve processes; focus on broad issues.

**Expert/Leader** - Seen as an expert and/or leader; guides, troubleshoots; has strategic focus; applies knowledge and skill across or in leading multiple projects/orgs; demonstrates knowledge of trends in field; leads in developing new processes.

### Position Qualifications

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<th>Education or Equivalency Required</th>
<th>Bachelor’s degree in Microbiology, Molecular Biology or related field or an equivalent combination of education and experience.</th>
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<td>Required Qualification</td>
<td>1-3 years of relevant laboratory experience.</td>
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**LOCAL JOB DESCRIPTION**

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- 1-3 years of experience with at least 2 of the following techniques: qPCR, dPCR, environmental sample testing or clinical sample testing.
- Demonstrates an extensive proficiency in effective communication concepts, using varied tools and techniques to transmit, receive and interpret information both written and verbally.
- Demonstrates a proficiency with Microsoft Office products and computer-based statistics programs (SAS, R, Python, STATA).
- Demonstrates an extensive knowledge and experience using laboratory instrumentation.

**Highly Desirable Qualification**

- Master’s degree or Ph.D in Microbiology, Molecular Biology or related field.
- Experience with digital PCR or droplet digital PCR.
- Experience with King Fisher Flex or similar automated extraction platforms.
- Basic environmental lab testing experience (e.g., water or other environmental testing) in high throughput lab setting.
- Working level analytical experience in an ISO17025 or equivalent accredited laboratory.
- Basic familiarity with state and federal environmental testing regulations.
- Demonstrates working knowledge and experience with Laboratory Information Systems (LIMS).

See requisition # 22005452 at [https://jobs.uiowa.edu](https://jobs.uiowa.edu)

Applicable background checks will be conducted.

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, religion, national origin, age, sex, pregnancy (including childbirth and related conditions), disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, or associational preferences.