State Hygienic Laboratory  
Diagnostic and Clinical Division  
Antimicrobial Resistance Coordinator

University Classification: Clinical Lab Technical Specialist  
Job Code: PHA2  
Pay Level: 4A  
Position #: 00178800  
Org/Dept/Sub-dept #: 90-9050 Microbiology  
Position Reports to: Megan Nelson  
00115753

Position Specific Summary:
The State Hygienic Laboratory (SHL) is seeking an Antimicrobial Resistance (AR) Coordinator. This position functions within the Microbiology section of the Diagnostic and Clinical Division of SHL.

The primary responsibility of the position is to perform bench level oversight of diagnostic testing of targeted antibiotic resistant bacteria using conventional microbiological and molecular methods, according to guidance from the Antibiotic Resistance Laboratory Network (ARLN). In addition, conducts identification of referred clinical isolates, and laboratory testing on animal specimens for rabies virus diagnosis and treatment. Ensures results are accurate and timely and that work is conducted under best laboratory practice and in compliance with CLIA regulations and other regulatory agency requirements as appropriate. Adheres to all laboratory safety and security policies. Participates in test validation and verification. Recommends test changes to reduce cost and/or turnaround time. Trains new staff.

The secondary responsibility of the position is to manage and disseminate AR data generated by SHL, and coordinate, track, and report colonization screenings within the state. This position will work closely with epidemiologists from the Iowa Department of Public Health (IDPH) Center for Acute Disease Epidemiology (CADE), acting as the ARLN liaison between SHL and IDPH. In addition, will perform outreach with clinical partners, participate in educational webinars, and facilitate isolate submission from clinical labs across Iowa.

Schedule: M-F, 8 a.m.-5 p.m.
Holiday, Weekend, and on-call coverage is required.

Key Areas of Responsibilities and Specific Job Tasks

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<th>Classification</th>
<th>Specific Job Duties and Tasks</th>
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| Technical Laboratory Capability | • Conduct testing on human bacterial isolates using microbiological and molecular methods  
• Conduct phenotypic and molecular testing for the identification of antibiotic resistance genes. Perform antibiotic susceptibility testing.  
• Conduct testing for rabies virus including dissection and sectioning of small animal brains, slide preparation, staining, and slide reading  
• Apply extensive knowledge of clinical laboratory testing to provide sound independent work and train others on relevant methods.  
• Use knowledge of clinical lab standards, procedures, and theories to troubleshoot, modify, or adapt established methods, procedures, or techniques.  
• Apply knowledge of bacterial genetics and antibiotic resistance to answer questions from providers and epidemiologists.  
• Organize and report ContainNET Surveillance results to submitting facility and IDPH. Interpret sequencing data to determine isolate relatedness and direct investigations. |
| Instrumentation and Technology | • Operation and maintenance of instrumentation including but not limited to Bruker MALDI-TOF, ThermoFisher Sensititre System, and Cepheid GeneXpert System.  
• Perform instrument maintenance as directed, troubleshoot instrument problems, train staff, and perform calibrations of equipment as needed. |
| **Data Analysis, Reporting and Documentation** | • Schedule service visits for instruments when needed.  
• Recommend new and existing equipment and instruments for area to increase test capacity.  
• Write new and review existing standard operating procedures. Assist in the preparation of test validation studies.  
• Review Antibiotic Resistance sequencing data to direct investigations of closely related isolates. Interpret relatedness matrices for epidemiologists and answer genomic epidemiology questions.  
• Maintain log of Iowa antibiotic resistant isolate data.  
• Update ARLN REDCap alerts with antibiotic susceptibility results and NCBI SRA ID.  
• Review results and analyze quality control; release routine and may release complex data; interpret and report results.  
• Submit ARLN testing data to CDC monthly. |
| **Quality Control / Quality Assurance / Quality Improvement / Quality Assessment** | • Promote quality control and quality assurance procedures in accordance with established policies.  
• Serve as a resource and facilitate staff in analyzing problems and preparing documents.  
• Create and manage monthly quality assurance reports and Analyze quality control data over time.  
• Initiate corrective actions. |
| **Outreach and Communication** | • Serve as an Antibiotic Resistance expert, providing authoritative advice for tests requiring special knowledge.  
• Interpret test results for physicians and epidemiologists and recommend further testing when indicated.  
• Create and deliver presentations.  
• Answer questions and provide education related to novel antibiotic resistance genes and infection control. |
| **Compliance / Administration** | • Completes competency assessment and maintains competency for methods on the ARLN and rabies benches.  
• Participates in proficiency tests.  
• Serves as lead technologist for the ARLN bench. |
| **Leadership** | • Train new technologists on ARLN methods and antibiotic resistance.  
• Provide guidance in troubleshooting tests.  
• Work with IDPH to educate providers on the importance of antibiotic stewardship and burden of antibiotic resistance in Iowa.  
• Recruit healthcare facilities to submit surveillance isolates. |
| **Human Resources** | • Provide input on HR activities such as recruitment and promotion. |
| **Financial Responsibility** | • Contribute to budget development by assisting with test costing, finding replacement items for a reduced cost, and/or recommending alternative, cost-effective methods. |

**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
Technical Competencies

| Clinical Laboratory Testing (Extensive) | • Supervises clinical specimen collection and processing for various test requests.  
| | • Trains others on the appropriate operation of medical laboratory equipment.  
| | • Oversees the testing/examination of clinical specimens per physicians’ requests.  
| | • Evaluates the accuracy of results obtained from clinical laboratory tests.  
| | • Recommends solutions to improve existing procedures of clinical laboratory tests.  
| | • Directs relevant policy and ethics compliance for all clinical laboratory tests. |

| 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.  
| | • Supervises the safe purging of waste from laboratory equipment. |

| Laboratory Practice Quality Assurance (LPQA) (Working) | • Examines laboratory sample collection, handling and analysis 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 Reporting (Working) | • Selects from a variety of LRR technologies, e.g. Electronic Data Interchange (EDI).  
| | • Analyzes information exchange related problems (e.g. confidentiality and accuracy) in LRR.  
| | • Follows LRR policies and ethics, e.g. Health Insurance Portability and Accountability Act (HIPAA).  
| | • Explains how LRR supports the interoperability between health records and laboratory systems.  
| | • Creates secure access to laboratory results and their interpretations in a patient-focused manner. |

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.
**Position Qualifications**

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<th>Education or Equivalency Required</th>
<th>A Bachelor’s degree in Microbiology, Clinical Lab Science, Biology, or related field or an equivalent combination of education and experience is required.</th>
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<td>Required Qualification</td>
<td>• Demonstrate a minimum of 1 year of relevant laboratory experience in a professional setting.</td>
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<td>• Excellent communication, interpersonal, and relationship management skills.</td>
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<td>• Extensive proficiency with Windows based systems, computer and digital operations.</td>
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<td>• Must meet CLIA requirements for high complexity testing.</td>
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<td>• Must demonstrate a working knowledge related to antimicrobial resistance including but not limited to test methods, data management, and infection control.</td>
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<td>Highly Desirable Qualification</td>
<td>• A Master's degree in Microbiology, Clinical Lab Science, Biology, or related field of education and experience is highly preferred.</td>
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<td>• Demonstrate at least 3 years of relevant laboratory experience in a professional setting.</td>
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<td>• Team leadership skills.</td>
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<td>• Certification by ASCP or NCA is highly desired.</td>
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<td>Desirable Qualification</td>
<td>• Working experience in clinical or research laboratory testing.</td>
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<td>• Knowledge of diagnostic experience in bacteriology, microscopy, and molecular methods including real-time PCR and DNA sequencing.</td>
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<td>• Experience with Quality Assurance, and Quality Control in a laboratory setting.</td>
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<td>• Demonstrate working understanding of lab safety operations.</td>
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<td>• Working experience in a high-volume, fast-paced clinical lab environment.</td>
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See requisition # 22003528 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, national origin, age, sex, pregnancy, sexual orientation, gender identity, genetic information, religion, associational preference, status as a qualified individual with a disability, or status as a protected veteran.