

DUTY STATEMENT

Employee Name: Vacant	Position Number: 581-723-5587-909
Classification: Research Scientist II (Microbiological Sciences)	Tenure/Time Base: Permanent/Full-Time
Working Title: Food Safety Research Scientist	Work Location: 850 Marina Bay Parkway, G365, Richmond, CA, 94804
Collective Bargaining Unit: R10	Position Eligible for Telework (Yes/No): Yes
Center/Office/Division: Center for Laboratory Sciences / Division of Environmental Health Laboratories	Branch/Section/Unit: Food and Drug Laboratory Branch / Microbiology Section / Microbiology Testing Unit

All employees shall possess the general qualifications, as described in California Code of Regulations Title 2, Section 172, which include, but are not limited to integrity, honesty, dependability, thoroughness, accuracy, good judgment, initiative, resourcefulness, and the ability to work cooperatively with others.

This position requires the incumbent to maintain consistent and regular attendance; communicate effectively (orally and in writing) in dealing with the public and/or other employees; develop and maintain knowledge and skill related to specific tasks, methodologies, materials, tools, and equipment; complete assignments in a timely and efficient manner; and, adhere to departmental policies and procedures.

All California Department of Public Health (CDPH) employees perform work that is of the utmost importance, where each employee is important in supporting and promoting an environment of equity, diversity, and inclusivity, essential to the delivery of the department's mission. All employees are valued and should understand that their contributions and the contributions of their team members derive from different cultures, backgrounds, and life experiences, supporting innovations in public health services and programs for California.

Competencies

The competencies required for this position are found on the classification specification for the classification noted above. Classification specifications are located on the [California Department of Human Resource's Job Descriptions webpage](#).

Job Summary

This position supports the California Department of Public Health's (CDPH) mission and strategic plan by promoting health and wellness and improving state health outcomes by advancing protective measures and reducing risk.

The incumbent works under the general supervision of the Research Scientist Supervisor I (Microbiological Sciences) in the Food and Drug Laboratory Branch (FDLB), Microbiology Section,

Microbiology Test Unit. The Research Scientist II (Microbiological Sciences) (RS II) plans and carries out scientific research of moderate scientific scope and complexity such as method development and improvement of test methods. Participates in planning and conducting broad or complex analytical investigations relating to microbial contamination of food products (including) human food, animal food, food defense products and National Antimicrobial Resistance Monitoring System (NARMS) Food and Drug Administration (FDA) samples and analysis of environmental samples (including wastewater sample and swabs) for pathogens. This includes, but is not limited to, isolation, identification and characterization of a variety of pathogens, primarily bacterial, but can also include viral, fungal, and parasite pathogens. The use of standard operation procedures to work on product and environmental samples submitted to the laboratory for analysis. Responsible for pre-analytical, analytical and post-analytical parts of an investigation, which includes processing of samples for enrichment, carrying out analysis for identification and confirmation of pathogen isolated by Polymerase Chain Reaction (PCR), VITEK2 Compact (Biomerieu Inc.) analysis or Matrix-assisted laser desorption/ionization Time of Flight (MALDI-TOF) and writing of reports for submission to the supervisor. Post-confirmation work will include whole genome sequencing, DNA sequence analysis, and upload to PulseNet National Database or National Center for Biotechnology Information (NCBI).

Special Requirements

- Conflict of Interest (COI)
- Background Check and/or Fingerprinting Clearance
- Medical Clearance
- Travel: Up to 5% travel may be required
- Bilingual: Pass a State written and/or verbal proficiency exam in
- License/Certification:
- Other:

Essential Functions (including percentage of time)

- 45% Participates in the planning and conduct of broad or complex analytical investigations relating to microbial contamination of food products (including human food, animal feed, food defense products and NARMS FDA samples) and environmental samples (including swabs and wastewater samples) using standard operation procedures and is responsible for pre-analytical, analytical and post-analytical parts of the investigations. This includes, but is not limited to, sample collection, upload of metadata, and processing of samples for enrichment, performing screening by real-time PCR, carrying out analysis for identification and confirmation of pathogen isolated (by PCR, VITEK2 Compact (Biomerieux Inc) and MALDI-TOF, and writing of reports for submission to the supervisor. This includes the characterization of isolates on various culture medias and advanced characterization of pathogens using molecular methods. Post-confirmation work will include whole genome sequencing, DNA sequence analysis, and upload to PulseNet National Database or NCBI. Prepares accurate analysis documentation and laboratory reports for management review and make independent, difficult decisions relating to this specific scientific expertise using established guidelines and procedures.
- 35% Conducts independent research projects and/or method development for the detection and characterization of foodborne pathogens including those related to food defense. Projects can include, but are not limited to, development, optimization, and/or validation of culture methods, biochemical analysis, molecular characterization, serology, and maintenance of readiness for

food defense exercises. Participates in the planning and execution of inter/intra-lab validation studies for new methodologies. All projects require accurate research documentation and laboratory reports for management review, at least two (2) research presentation per year, and writing of research paper for peer-reviewed journals when needed.

15% Performs a variety of laboratory processes related to quality control procedures in media for microbiology, testing of special media to evaluate usage by professional staff, receiving samples and login of samples into Laboratory Information Management system. Conduct laboratory quality assurance functions.

Marginal Functions (including percentage of time)

5% Performs other work-related duties as required.

I certify this duty statement represents an accurate description of the essential functions of this position. I have discussed the duties and have provided a copy of this duty statement to the employee named above.

I have read and understand the duties and requirements listed above and am able to perform these duties with or without reasonable accommodation. (If you believe reasonable accommodation may be necessary, or if unsure of a need for reasonable accommodation, inform the hiring supervisor.)

Supervisor's Name:	Date	Employee's Name:	Date
Supervisor's Signature	Date	Employee's Signature	Date

HRD Use Only:
 Approved By: AC
 Date: 9/24/24