

DUTY STATEMENT

Employee Name:	Position Number: 580-721-5591-909
Classification: Research Scientist III (Chemical Science)	Tenure/Time Base: Permanent/Full Time
Working Title: Chemical Poisoning Specialist	Work Location: 850 Marina Bay Parkway, 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: Environmental Health Laboratory Branch / Biochemistry Section / Laboratory Support 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 strengthening the state environmental public health and laboratory testing program.

The Research Scientist III (RS III) investigates chemical emergency preparedness and testing, and conducts complex research on community exposures to toxic chemicals. The RS III serves as technical consultant to prepare for chemical poisoning incidents, and acts as Hospital Preparedness Program biochemical testing expert to provide training to healthcare coalition partners. The RS III also plans and conducts assessment of screening methods to assess human exposure to toxic

chemicals. The RS III compiles and organizes optimal methods to assess human exposure to toxic chemicals into method recommendations and expert systems for healthcare professionals.

The incumbent works under the general direction of the Chief of the Biochemistry Section (Research Scientist Supervisor II).

Special Requirements

- Conflict of Interest (COI)
- Background Check and/or Fingerprinting Clearance
- Medical Clearance
- Travel: 10%
- Bilingual: Pass a State written and/or verbal proficiency exam in
- License/Certification:
- Other:

Essential Functions (including percentage of time)

- 30% Serves as scientific adviser and consultant to state and non-governmental organizations in developing and evaluating scientific capabilities in chemical poisoning emergency response. Compiles and develops an analytical chemistry and toxicology knowledge-based Expert System to recommend chemical exposure testing and analytical methods by using various data base and programming tools such as Visual Basic for Applications, and Python etc. Develops and promotes strategies to improve chemical poisoning testing programs. Collects and evaluates analytical methods for specific toxic chemicals ; Evaluates proper sampling strategies to assess exposure; develops biochemical testing procedures .
- 20% Identifies exposure sources and pathways. Predicts human metabolites of chemical poisons based on the metabolism pathways and recommends proper exposure biomarkers and effect biomarkers. Based on the characteristics of the chemical biomarkers, recommends proper sampling plan and chemical or biological test methods and procedures such as Gas Chromatography–Mass Spectrometry(GC-MS),Liquid Chromatography-Mass Spectrometry (LC-MS), or Inductively Coupled Plasma Mass Spectrometry (ICP-MS).
- 15% Analyzes and interprets chemical poisoning research studies and response gaps in healthcare coalitions, and shares best practices derived from poisoning incident response lessons learned. This includes medical case studies of poisoning events, hospital survey results, and toxicology studies of persistence of specific chemicals in the body over time. Prepares reports of response findings and suggested improvement plans.
- 15% Plans, coordinates, and conducts outreach and training for hospital and other healthcare coalition professionals on preparedness and testing for toxic chemical exposures. Specific training items will include using chemical expert systems to identify commonly encountered chemical poisons in patients; selection of the most appropriate biomarkers of exposure; and tracking chemical body burdens over time with preferred sampling strategies.
- 15% Uses surveys and interviews with health care and poison control staff to identify exposure patterns of toxic chemicals in specific regions, impacted populations, and in healthcare operational areas. Recommends chemical exposure prevention strategies.

Marginal Functions (including percentage of time)

5% Performs other duties as assigned.

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: SB

Date: 2/13/24