

DUTY STATEMENT

Employee Name:	Position Number: 580-710-7948-901
Classification: Public Health Microbiologist II	Tenure/Time Base: Limited Term/Full Time
Working Title: Microbiology Training Scientist	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	Branch/Section/Unit: Operations Branch/PHM Training Program & Laboratory Animal Services Section

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 supporting activities and trainings concerned with the examination and testing of potentially hazardous biological and environmental materials capable of transmitting disease to man.

The Public Health Microbiologist (PHM) II, acting as the Microbiology Scientist, prepares, organizes, and provides subject matter expertise to conduct didactic and laboratory hands-on training for PHM trainees. Performs routine to advanced innovative laboratory testing and analyses, following standard operating procedures (SOP) and program policies. Provides laboratory procedures and training performed in reference public health laboratories, develops and updates SOPs.

Performs evaluations for lab methods, processes, and training curriculum. Provides competency assessments for PHM trainees. Makes interpretive analyses of data. Serves as the expert in his/her specialty area of microbiology (parasitology, mycology, anaerobic bacteriology, immunology, food microbiology, environmental microbiology). Provides technical feedback and expert guidance in the area of expertise. Support and assists with the on-site and online training portal, risk assessment and biosafety compliance, and continuous process improvement activities.

The incumbent works under the general direction of the Public Health Microbiologist Supervisor (PHMS) of the PHM Training Program & Laboratory Animal Services Section of the Operations Branch.

Special Requirements

- ☐ Conflict of Interest (COI)
- ☐ Background Check and/or Fingerprinting Clearance
- ☐ Medical Clearance
- ☒ Travel: 5%
- ☐ Bilingual: Pass a State written and/or verbal proficiency exam in
- ☒ License/Certification: Public Health Microbiologist Certificate issued by the California Department of Health Services.
- ☐ Other:

Essential Functions (including percentage of time)

- 40% Under general direction of the PHM supervisor, the incumbent plans, organizes, and provides training program support to deliver PHM training didactic and laboratory training for PHM trainees, including CDPH employees and county public health lab staff. Provides technical leadership and assists by using their knowledge and experience in public health laboratory and clinical diagnostic testing and complex analysis of data in areas of bacteriology, mycology, parasitology, serology, molecular, and other microbiology methods, and principles. Uses advanced, molecular, and sophisticated lab equipment, technologies, and complex techniques to demonstrate and process samples and detect, isolate, identify, and characterize microorganisms. Prepares, plans, and organizes assigned training modules by processing isolates, growing microbiology cultures, maintaining stock cultures, maintaining inventories of equipment, lab media, reagents, and supplies, PPEs (Personal Protective Equipment), receiving samples, preparing reagents and media for testing, and ordering and receiving supplies. Adheres, updates, and ensures compliance with the CDPH lab safety and biosafety requirements, and federal and state regulations for self and lab personnel, and test procedures for the detection, identification, and characterization of various pathogens and organisms used in PHM Training. Maintains own proficiency and competency as a PHM trainer in various laboratory testing, procedures, molecular technology, and new practices in PHM labs for the assigned training modules by performing competency assessment, continuing education (e.g., CDC APHL (Association of Public Health Laboratories)), mandatory lab training, and cross-training with other lead trainers. There are currently more than 20 modules in PHM training and each module has a list of competencies. Performs test methods that include, but are not limited to, classical microbiology for microorganism isolation and identification, molecular methods such as polymerase chain reaction (PCR) and deoxyribonucleic acid (DNA)

sequencing, matrix-assisted laser desorption/ionization-time of flight (MALDI-TOF) mass spectrometry (MS) and working knowledge of Whole Genome Sequencing (WGS), set up tests and assays and provides characterization through isolation, detection, and identification of test isolate microorganisms, samples, and/or bacterial toxins. Troubleshoots assays. Ensures acceptable pre-analytic, analytic, and post-analytic practices and procedures. Maintains and secures laboratory records, training records, safety and incidence reports, and other records required for certification of training laboratories by Laboratory Field Services. Interprets, records, and reviews of PHM trainees' reports for completeness and accuracy. Provides mentoring and assists with training entry-level laboratory classifications (e.g., PHM I, Lab Technician, etc.) and helps educate and train PHM trainees and new scientists.

- 25% Ensures compliance with Quality Control and Quality Assurance (QC/QA) policies and procedures, biosafety, and risk assessment procedures for PHM Training and Animal Science section. Works with the CDPH Occupational Health Program policies and procedures to ensure compliance. Provides technical leadership and assistance based on their knowledge, experience, and training on microbiological toxin testing, quality control, biosafety, and risk assessment for the Center of Laboratory Sciences (CLS) Operations Branch Animal Facility. Supports and collaborates with the Department's Institutional Animal Care and Use Committee (IACUC) to meet biosafety and compliance for the Animal Facility procedures and maintain the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) accreditation standards. Duties would include performing and reporting of routine QC/QA procedures, maintaining logs, routine safety checks, assist with SOP updates and biosafety SOP, incident reporting, and assist with troubleshooting equipment, such as SmartVue environmental monitoring system and BSCs (biological safety cabinets). As part of the CLS Operations branch, serve as the PHM advisor for the safety committee, Quality Control and Data management Unit, Biosafety liaison, assists in updating training labs' risk assessment, and toxin testing for public health lab diagnostic testing (e.g., Botulism and PSP (Paralytic Shellfish Poisoning) methods), including safe use of infectious agents in animals. Supports and maintains CLS' Clinical Laboratory Improvement Amendments (CLIA) standards. Develops, and applies new techniques in standardization and evaluation of microbiological media, equipment, and lab procedures. Utilizes various laboratory procedures, evaluates biohazards and their impact to diagnostic laboratories, other campus laboratories, county public health laboratories, and the public. Assists in researching and implementing complex quality system projects in the laboratory, such as laboratory inventory and asset tracking, updating, and database management.
- 15% Assists with CLS laboratory staff mandatory health and safety training, supports APhL and LabAspire training activities, and the online PHM online platforms by providing necessary updates and develops assigned modules. Incorporates newly developed procedures and techniques to laboratories and facility and ensures compliance with National Institutes of Health, Centers for Disease Control and Prevention, CAL/OSHA, and CLIA. Assists Health and Safety Officer with risk assessment activities. Prepares and maintains Health and Safety, Injury and Illness Prevention, Chemical Hygiene, and Bloodborne Pathogen Manuals. Administers the employee's HIV monitoring and immunization program in consultation with Laboratory Chiefs, PHM experts, Epidemiologists in the Immunization Unit, contracting Veterinarian, CAPHLD (CA Association of Public Health Laboratory Directors) training committee, contractors and

consultants, and other partners. Monitors and coordinates safety and compliance activities, identify potential areas of vulnerability and risk, develop and review risk assessments and reports on a regular basis, provides recommendations, and assists on implementation of corrective action plans as directed. The PHMS provides support for Occupational Safety and Health Administration (OSHA) and Clinical Laboratory Improvement Amendments (CLIA) compliance with good lab practices and other applicable federal and state regulatory standards. Assists with updating trainees' emergency contacts and communications of required immunizations.

- 15% Participates in training program and lab process improvement to ensure quality of PHM training in person, online, and remotely. Works collaboratively with training partners and CDPH labs to ensure timely delivery of training and training resources. Works with contractors, training partners, and external stakeholders to conduct surveys, gather feedback, maintain records, and assists with evaluations and process improvement. Works with Facilities Management Section by timely communications of necessary repairs, services, safety concerns and issues through work orders, meetings, and follow up emails. Prepare laboratory procedures and health and safety documents. Works with training committee and CDPH labs to identify, contact, and schedule potential guest speakers and laboratory guest trainers, identifies needed lab supplies and resources, and helps coordinate procurements of laboratory items. The PHMS works closely with all stakeholders on Richmond Campus with regards to laboratory biosafety and compliance issues.

Marginal Functions (including percentage of time)

- 5% Performs other 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: CP

Date: 5/28/25

DUTY STATEMENT

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Working Title: Microbiology Training Scientist	Work Location: 850 Marina Bay Parkway Richmond, CA 94804
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Job Summary

This position supports the California Department of Public Health's (CDPH) mission and strategic plan by supporting activities and trainings concerned with the examination and testing of potentially hazardous biological and environmental materials capable of transmitting disease to man.

The Public Health Microbiologist (PHM) I, under the direction of the Public Health Microbiologist Supervisor (PHMS) prepares, organizes, provides and conducts didactic and laboratory hands-on training for PHM trainees. Assists with routine innovative laboratory testing and analyses, following standard operating procedures (SOP) and program policies. Under supervision on the PHMS provides laboratory procedures and training performed in reference public health laboratories,

develops and updates SOPs. Assists in the performance evaluations for lab methods, processes, and training curriculum. Assists with competency assessments for PHM trainees. Assists in interpretive analyses of data in the specialty area of microbiology (parasitology, mycology, anaerobic bacteriology, immunology, food microbiology, environmental microbiology). Assists with technical feedback and other related duties. Assist with the on-site and online training portal, risk assessment and biosafety compliance, and continuous process improvement activities.

The incumbent works under the direction of the (PHMS) of the PHM Training Program & Laboratory Animal Services Section of the Operations Branch.

Special Requirements

- ☐ Conflict of Interest (COI)
- ☐ Background Check and/or Fingerprinting Clearance
- ☐ Medical Clearance
- ☒ Travel: 5%
- ☐ Bilingual: Pass a State written and/or verbal proficiency exam in
- ☒ License/Certification: Public Health Microbiologist Certificate issued by the California Department of Health Services.
- ☐ Other:

Essential Functions (including percentage of time)

- 40% The incumbent plans, organizes, and provides training program support to assist with PHM training didactic and laboratory training for PHM trainees, including CDPH employees and county public health lab staff. Assists with technical leadership by using their knowledge and experience in public health laboratory and clinical diagnostic testing and complex analysis of data in areas of bacteriology, mycology, parasitology, serology, molecular, and other microbiology methods, and principles. Under the direct supervision of the PHMS uses advanced, molecular, and sophisticated lab equipment, technologies, and complex techniques to demonstrate and process samples and detect, isolate, identify, and characterize microorganisms. Assists in the preparation of plans, and organizes assigned training modules by processing isolates, growing microbiology cultures, maintaining stock cultures, maintaining inventories of equipment, lab media, reagents, and supplies, PPEs (Personal Protective Equipment), receiving samples, preparing reagents and media for testing, and ordering and receiving supplies. Assists with updates, and compliance with the CDPH lab safety and biosafety requirements, federal and state regulations for self and lab personnel, and test procedures for the detection, identification, and characterization of various pathogens and organisms used in PHM Training. Assists in maintaining proficiency and competency as a PHM trainer in various laboratory testing, procedures, molecular technology, and new practices in PHM labs for the assigned training modules by performing competency assessment, continuing education (e.g., CDC APHL (Association of Public Health Laboratories)), mandatory lab training, and cross-training with other lead trainers. There are currently more than 20 modules in PHM training and each module has a list of competencies. Assists in the performance of test methods that include, but are not limited to, classical microbiology for microorganism isolation and identification, molecular methods such as polymerase chain reaction (PCR) and deoxyribonucleic acid (DNA) sequencing, matrix-

assisted laser desorption/ionization-time of flight (MALDI-TOF) mass spectrometry (MS) and working knowledge of Whole Genome Sequencing (WGS), set up tests and assays and provides characterization through isolation, detection, and identification of test isolate microorganisms, samples, and/or bacterial toxins. Assists with assays, analytic, and post-analytic practices and procedures. Maintains and secures laboratory records, training records, safety and incident reports, and other records required for certification of training laboratories by Laboratory Field Services. Assists in the interpretation of records, and reviews of PHM trainees' reports for completeness and accuracy. Assists with training entry-level laboratory classifications (e.g., Lab Technician, Lab Assistants etc.) and helps educate and train PHM trainees and new scientists.

- 25% Assists with Quality Control and Quality Assurance (QA/QC) policies and procedures, biosafety, and risk assessment procedures for PHM Training and Animal Science section. Works with the CDPH Occupational Health Program policies and procedures to ensure compliance. Assist based on their knowledge, experience, and training on microbiological toxin testing, quality control, biosafety, and risk assessment for the Center of Laboratory Sciences (CLS) Operations Branch Animal Facility. Supports and collaborates with the Department's Institutional Animal Care and Use Committee (IACUC) to meet biosafety and compliance for the Animal Facility procedures and maintain Assessment and Accreditation of Laboratory Animal Care (AAALAC) accreditation standards. Duties would include performing and reporting of routine QC/QA procedures, maintaining logs, routine safety checks, assists with SOP update and biosafety SOP, incident reporting, and assists with troubleshooting equipment, such as SmartVue environmental monitoring system and BSCs (biological safety cabinets). As part of the CLS Operations branch, serve as the PHM advisor for the safety committee, Quality Control and Data management Unit, Biosafety liaison, assists in updating training labs' risk assessment, and toxin testing for public health lab diagnostic testing (e.g., Botulism and PSP [Paralytic Shellfish Poisoning] methods), including safe use of infectious agents in animals. Assists with the CLS' Clinical Laboratory Improvement Amendments (CLIA) standards. Helps with the development, and application of new techniques in standardization and evaluation of microbiological media, equipment, and lab procedures. Under the direct supervision of the PHMS utilizes various laboratory procedures, evaluates biohazards and its impact to diagnostic laboratories, other campus laboratories, county public health laboratories, and the public. Assists in researching and implementing complex quality system projects in the laboratory, such as laboratory inventory and asset tracking, updating, and database management.
- 15% Assists with CLS laboratory staff mandatory health and safety training, supports APhL and LabAspire training activities, and the online PHM online platforms by providing necessary updates and develops assigned modules. Assists with the newly developed procedures and techniques to laboratories and facility to ensure compliance with National Institutes of Health, Centers for Disease Control and Prevention, CAL/OSHA, and CLIA. Assists Health and Safety Officer with risk assessment activities. Prepares and maintains Health and Safety, Injury and Illness Prevention, Chemical Hygiene, and Bloodborne Pathogen Manuals. Helps with the employee's HIV monitoring and immunization program in consultation with Laboratory Chiefs, PHM experts, Epidemiologists in the Immunization Unit, contracting Veterinarian, CAPHLD (CA Association of Public Health Laboratory Directors) training committee, contractors and consultants, and other partners. Under close supervision of the PHMS monitors and coordinates safety and compliance activities, identify potential areas of vulnerability and risk, develop and review risk assessments and reports on a regular basis, provides recommendations, and assists on implementation of corrective action plans as directed. The Public Health Microbiologist I helps support the Occupational Safety and Health Administration (OSHA) and CLIA compliance with good lab practices and other applicable federal and state

regulatory standards. Assists with updating trainees' emergency contacts and communications of required immunizations.

- 15% Assists in training program and lab process improvement to ensure quality of PHM training in person, online, and remotely. Under the close supervision of the PHMS works collaboratively with training partners and CDPH labs to ensure timely delivery of training and training resources. Works with contractors, training partners, and external stakeholders to conduct surveys, gather feedback, maintain records, and assists with evaluations and process improvement. Assists with Facilities Management Section timely communications of necessary repairs, services, safety concerns and issues through work orders, meetings, and follow up emails. Helps with laboratory procedures and health and safety documents. Works with training committee and CDPH labs to identify, contact, and schedule potential guest speakers and laboratory guest trainers, identifies needed lab supplies and resources, and helps coordinate procurements of laboratory items.

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

HRD Use Only:

Approved By: CP

Date: 7/31/25