

Our mission is to “*protect and improve the health of all Californians.*”

## WHAT ARE THE JOB OPPORTUNITIES?

California’s public health laboratories are comprised of a unique network of 39 local county and city laboratories located throughout California and the State laboratories located in the San Francisco Bay Area.

Most Public Health Microbiologists (PHMs) are employed in a county or state public health laboratory where they perform the complex analytical microbiological procedures. A wide variety of career options are available in related areas of public health, academia, research, industry and regulatory affairs. Certification and experience as a Public Health Microbiologist also may apply toward the requirements for licensure as a California Clinical Laboratory Scientist.

## Benefits of being a California Public Health Microbiologist

- Work in a variety of locations and working conditions ranging from small (1-2 PHM) laboratories to “state of the art” laboratories employing up to 50 PHM
- Opportunities to attend specialized training at other institutions, including the Centers for Disease Control and Prevention
- Professional seminars on site
- Participation in the development of new molecular and serologic assays.
- Collaboration with colleges nationwide
- Pension and retirement plans
- Excellent health benefits
- Personal satisfaction from contributing to the health and well being of the community

## How to Contact Us

CA Public Health Laboratory Director  
Training Program - Lab Aspire  
[www.LabAspire.org](http://www.LabAspire.org)

OR

California Department of Public Health  
Kathy Williams, Manager,  
Public Health Laboratory Program -  
Laboratory Field Services  
(510) 620-3800  
[Kathy.Williams@cdph.ca.gov](mailto:Kathy.Williams@cdph.ca.gov)

OR

Local Public Health Laboratories  
California Association of Public Health  
Lab Directors (CAPHLD)  
[www.CAPHLD.org](http://www.CAPHLD.org)

OR

California Department of Public Health  
David Cottam, PHM Training Coordinator  
850 Marina Bay Parkway  
Richmond, CA 94804  
(510) 307-8575  
[David.Cottam@cdph.ca.gov](mailto:David.Cottam@cdph.ca.gov)



## A CAREER IN CALIFORNIA PUBLIC HEALTH MICROBIOLOGY



**We touch the life of  
every Californian.**

Visit the new  
California Department of Public Health  
website at  
[www.cdph.ca.gov](http://www.cdph.ca.gov)

## WHAT IS PUBLIC HEALTH?

Public Health as defined in the 1988 Institute of Medicine study, The Future of Public Health "... is what we, as a society, do collectively to assure the conditions in which people can be healthy". Public Health is community health: the prevention and control of communicable disease, ensurance of a safe community environment, promoting and maintaining a healthy population.

## WHAT IS PUBLIC HEALTH MICROBIOLOGY?

**Public Health Microbiology is the specialized area of microbiology which detects and identifies microorganisms (bacteria, fungi, viruses, rickettsia and parasites) associated with infectious and communicable diseases.**

The concept of Public Health laboratories developed during the 19<sup>th</sup> century when laboratory information was first recognized as essential to cities and states as they fought the harmful and unsanitary conditions that caused epidemics. The laboratory's role has expanded beyond providing information to help local and state public health departments control and prevent communicable disease. Public Health laboratories, like Public Health programs, continue to respond to the changing needs of the community.

## WHO ARE PUBLIC HEALTH MICROBIOLOGISTS (PHMs)?

Public Health Microbiologists are a select group of professional laboratorians whose comprehensive approach to the identification and characterization of microorganisms of public health significance contribute to the control and prevention of disease.

Microbiologists perform a variety of complex laboratory techniques from traditional isolation and serological methods to fluorescent microscopy, flow cytometry, and molecular technology. In testing specimens from human, animal, food, water, and environmental sources, these professionals:

- Isolate and identify microorganisms that cause disease
- Determine antibiotic susceptibility patterns of microbes to detect emerging drug resistance
- Confirm past or present infection through serological testing
- Isolate the causative agents related to foodborne illnesses from food or patient specimens
- Monitor the emergence, spread and trends of communicable disease through surveillance studies in collaboration with local, state and federal agencies
- Confirm or identify isolates referred by hospital or independent laboratories, blood banks, community clinics and physicians
- Detect health threatening environmental substances
- Test for agents of bioterrorism

Public Health Microbiologists are active in training laboratory personnel. They develop improved laboratory procedures and practices and monitor the laboratory's quality control performance. They provide consultation services to other laboratories and the medical community.

In an era of persistent emerging and reemerging pathogens, (e.g. enteroviruses, *E. coli* 0157:H7 and other foodborne infectious agents, Hepatitis C, HIV, Influenza, multiple drug resistant tuberculosis, plague and rabies) Public Health Microbiology remains crucial to the public's health and will continue to be both a challenging and a rewarding career.

## WHAT ARE THE REQUIREMENTS TO CERTIFY AS A CALIFORNIA PUBLIC HEALTH MICROBIOLOGIST?

- Academic requirements include a Bachelor or higher degree in a biological, chemical, physical or laboratory science with a solid foundation in microbiology.
- Training/experience requirements include 6 months training in the State PH laboratory or approved Local Public Health Laboratory or equivalent experience.
- Approval to train must be obtained from Laboratory Field Services prior to the start of training. Contact Kathy Williams (see below) for a training application.

California Department of Public Health  
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Manager, Public Health Laboratory Program  
Laboratory Field Services  
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## Visit the following two websites for more information:

California Association of Public Health Laboratory Directors (CAPHLD)  
[www.CAPHLD.org](http://www.CAPHLD.org)

CA Public Health Laboratory Director Training Program - Lab Aspire  
[www.LabAspire.org](http://www.LabAspire.org)