

**DUTY STATEMENT**

Employee Name:	Position Number: <b>580-530-5608-909</b>
Classification: Research Scientist IV (Chemical Sciences)	Tenure/Time Base: Permanent / Full-Time
Working Title: Senior Bioinformatician and Research Data Analyst	Work Location: 850 Marina Bay Parkway, MS 8200 Richmond, CA 94804
Collective Bargaining Unit: R10	Position Eligible for Telework (Yes/No): No
Center/Office/Division: Center for Family Health/Genetic Disease Screening Program	Branch/Section/Unit: Laboratory Services Branch/Administrative Supervisor Section/ Data Analytics & Bioinformatics 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.

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**Competencies**


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

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**Job Summary**


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This position supports the California Department of Public Health's (CDPH) mission and strategic plan by improving the health and wellbeing of children born with inheritable diseases and reducing the burden of patients and families through early detection.

The incumbent works under the administrative direction of the Research Scientist Supervisor I (RSS I) (Chemical Sciences), Chief of the Data Analytics and Bioinformatics Unit of the Laboratory Services Branch (LSB), in the Genetic Disease Screening Program (GDSP). The Research Scientist IV (Chemical Sciences) will plan, organize, and direct major scientific research studies that are complex

and have statewide sensitivity and policy impact. Develop computational aspects of assay, analyze, and optimize new molecular and genomic assays and lab techniques. The incumbent will work with supervisors and other research staff, apply statistical, bioinformatics tools and software, and analyze genetic, genomic, and proteomic data to describe and better understand the determinants of testing results and genetic conditions in patients.

### Special Requirements

- ☐ Conflict of Interest (COI)
- ☐ Background Check and/or Fingerprinting Clearance
- ☐ Medical Clearance
- ☒ Travel: up to 5%, training and scientific conferences
- ☐ Bilingual: Pass a State written and/or verbal proficiency exam in
- ☐ License/Certification:
- ☐ Other:

### Essential Functions (including percentage of time)

- 35% Under administrative direction, plans, organizes, and carries out statistical analysis and interpretation of newborn screening samples. Act as a subject-matter expert in conducting public health scientific research. Develops and implements analytic approaches for processing data related to the disorders in the current newborn screening program and other new disorders that are updated to the California panel. Collaborates with laboratory research and clinical scientists to design and execute data analysis projects, including quality control functions consistent with the LSB quality management plan. Participates in policies and strategic planning activities and provides consultation to departmental management and others as requested. Formulates recommendations to improve existing screening and data analytic methodologies based on integration of research findings.
- 30% Under strategic guidance, designs, develops, implements, and maintains bioinformatics analysis tools and pipelines, contributing to the enhancement of genomic data analysis and interpretation. Applies bioinformatics practices with an understanding of the patient population's needs to positively impact clinical outcomes. Develops, implements, and maintains tools for data mining and quality control of clinical genomic testing in accordance with the LSB quality management plan. Monitors the positivity rate, allele frequency, and other quality parameters.
- 15% As a scientific expert, provides evaluations and scientific recommendations to other lower-level scientists conducting bioinformatics and data analytics studies, including, but not limited to, conducting comprehensive literature search, writing scripts and programs, assessing, troubleshooting, and upgrading programs, developing algorithms, optimizing workflow, performing biostatistical and data analysis (including high throughput genome sequence data), high performance computing, database management, and genomic epidemiology.
- 10% Assists in expanding bioinformatics and data analysis capabilities. Coordinates with supervisor and research scientists and provides consultation, technical assistance, and support to NAPS laboratories and other GDSP branch and sections, including data analysis and report summaries for special projects based on program and division priorities. Fulfills data requests

from internal and external stakeholders.

- 5% Writes, updates, and revises protocols. Prepares presentations to state public health experts and the community on the scientific research conducted and also publishes this research in scientific journals.

### **Marginal Functions (including percentage of time)**

- 5% Develops and conducts training program. Performs other work-related 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: Brittany Hanson

Date: 9/17/25