

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



ITEM: 3.16  
(ID # 20814)

**MEETING DATE:**  
Tuesday, February 07, 2023

**FROM :** HUMAN RESOURCES AND RUHS-PUBLIC HEALTH :

**SUBJECT:** HUMAN RESOURCES & RUHS - PUBLIC HEALTH: Classification & Compensation Recommendation to create a new Public Health Bioinformatician classification; and amend Ordinance No. 440 pursuant to Resolution No. 440-9338 submitted herewith, All Districts. [Total Cost \$0, with an ongoing cost of \$0, 100% Grant Funded]

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. Approve the creation of the Public Health Bioinformatician classification; and,
2. Amend Ordinance No. 440 pursuant to Resolution No. 440-9338.

**ACTION:Policy**

  
Kim Saruwatari, Director of Public Health 1/18/2023

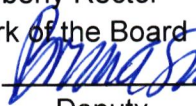
  
Michael Bowers, Assistant HR Director 1/23/2023

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**MINUTES OF THE BOARD OF SUPERVISORS**

On motion of Supervisor Spiegel, seconded by Supervisor Perez and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended and that Resolution 440-9338 is adopted as recommended.

Ayes: Jeffries, Spiegel, Washington, Perez and Gutierrez  
Nays: None  
Absent: None  
Date: February 7, 2023  
xc: H.R., RUHS-PH

Kimberly Rector  
Clerk of the Board  
By:   
Deputy

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<b>FINANCIAL DATA</b>	<b>Current Fiscal Year:</b>	<b>Next Fiscal Year:</b>	<b>Total Cost:</b>	<b>Ongoing Cost</b>
<b>COST</b>	\$ 0	\$ 0	\$ 0	\$ 0
<b>NET COUNTY COST</b>	\$ 0	\$ 0	\$ 0	\$ 0
<b>SOURCE OF FUNDS: 100% Grant Funded</b>			<b>Budget Adjustment: No</b>	
			<b>For Fiscal Year: 23/24</b>	

**C.E.O. RECOMMENDATION:** Approve

**BACKGROUND:**

**Summary**

The RUHS-PH Epidemiology and Program Evaluation/Vital Records Division is integral in ensuring the department's mission. The Division is responsible for providing comprehensive health data, including birth, death, communicable disease, maternal and child health, chronic illness, and injury, for program planning, evaluation, and public health assessment. The Division consists of specialized professional staff and supervisors supported by administrative and clerical staff.

RUHS-PH requested that Human Resources review and determine the feasibility of creating a Public Health Bioinformatician classification. The technical knowledge and competencies needed to perform bioinformatics are complex and relatively new to public health laboratories. Riverside does not currently utilize a job class equipped to perform in this matter. This new class will apply state-of-the-art computational methods and assist in developing innovative next-generation sequencing data analysis approaches.

Internally, this class shares similarities with the Research Specialist, Epidemiologist, and Senior Epidemiologist. Still, none specializes in or produces analytics based on bioinformatics or requires such a unique educational background. This new class will use data collected from County Epidemiologists and build upon the work of Senior Epidemiologists to analyze, identify trends, and make recommendations. Given the highly specialized nature of the Public Health Bioinformatician classification and to differentiate it from the Epidemiologist series and to account for the more complex duties, Human Resources recommends setting the Public Health Bioinformatician above the Senior Epidemiologist.

**Classification Addition:**

**Public Health Bioinformatician:** It is recommended to add this classification to the Class and Salary Listing using salary plan/grade SEU 621 (\$86,372 - \$125,933) (**Attachment II**).

**Impact on Residents and Businesses**

There is no impact on Residents or Businesses. RUHS-PH anticipates that the proposed Public Health Bioinformatician classification will improve the department's ability to respond to public health crises in the County.

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**Additional Fiscal Information**

The approximate cost to fill this position for the remainder of FY 22/23 would be \$84,545, including benefits. The approximate cost to fill this position for an entire fiscal year would be \$182,603, including benefits. The Department has indicated that the cost associated with adding and filling this position is included in their existing budget and will not require a budget adjustment.

**ATTACHMENTS:**

- I. Resolution No. 440-9338
- II. Public Health Bioinformatician Job Description

  
Douglas Cordonez Jr. 1/23/2023

     
Alonzo Barrera, Principal Management Analyst 1/30/2023

RESOLUTION NO. 440-9338

BE IT RESOLVED by the Board of Supervisors of the County of Riverside, State of California, in regular session assembled on February 7, 2023, that pursuant to Section 3(a)(iv) of Ordinance No. 440, the Director of Human Resources is authorized to amend the Class and Salary Listing of Ordinance No. 440, operative the beginning of the pay period following approval, as follows:

<u>Job Code</u>	<u>+/-</u>	<u>Class Title</u>	<u>Salary Plan/Grade</u>
78744	+	Public Health Bioinformatician	SEU 621

ROLL CALL:

Ayes: Jeffries, Spiegel, Washington, Perez and Gutierrez  
 Nays: None  
 Absent: None

The foregoing is certified to be a true copy of a resolution duly adopted by said Board of Supervisors on the date therein set forth.

KIMBERLY A. RECTOR, Clerk of said Board

By:   
Deputy

02.07.2023 3.16



## PUBLIC HEALTH BIOINFORMATICIAN

Class Code: 78744

COUNTY OF RIVERSIDE  
 Established Date: Jan 26, 2023  
 Revision Date: Jan 26, 2023

### SALARY RANGE

\$41.53 - \$60.54 Hourly  
 \$7,197.67 - \$10,494.45 Monthly  
 \$86,372.00 - \$125,933.39 Annually

### CLASS CONCEPT:

Under general direction, provides the scientific and technical computing expertise required to support the surveillance, diagnostics and research efforts of Riverside University Health System – Public Health (RUHS-PH); collects, analyzes, presents, and distributes public health data pertinent to the County; manages programs or projects involving the collection, interpretation, assessment, and use of data; performs other related duties as required.

The Public Health Bioinformatician is a single-position advanced journey level classification and reports to an appropriate supervisory or manager level position. The incumbent designs, evaluates and interprets scientific research related to disease control and prevention for use in policy development, and designs evaluation studies to support the mission of RUHS-PH. The incumbent will apply robust software engineering techniques to develop bioinformatic workflows, web applications and visualization of genomic data.

**REPRESENTATION UNIT:** SEIU – Professional

### EXAMPLES OF ESSENTIAL DUTIES:

(Depending on the area of assignment, duties may include, but are not limited to, the following)

- Provide bioinformatics support to genomic data analysis, primarily resulting from Next-Generation Sequencing (NGS) data (whole-exome, whole-genome, RNA-seq, ChIP-Seq, Single Cell, etc.); high-dimensional research data analysis and interpretation; research and clinical data integration, management, transformation, and automation of complex data transformation scripting, clinical data curation and medical informatics in support of large-scale research initiatives.
- Perform data analysis and software compilations, including next-generation sequence alignment, polymorphism identification and expression analysis.
- Develop, test and maintain modular software pipelines for genome sequencing, assembly, annotation, metagenomic analysis, and genotyping using high-throughput sequencing platforms, including 454, Illumina, Pacific Biosciences, PacBio, and Oxford Nanopore.

- Design, analyze, implement, and report findings on targeted research studies; provide oversight to investigators and researchers on experimental design and research approaches, requirements and scientific standards to advance medical knowledge and improve research in public health.
- Perform and oversee statistical modeling methodologies to meet study objectives; drive interpretation and presentation of research results in a visual and impactful customer-friendly fashion.
- Develop enhancements to software, as appropriate, by programming new techniques; maintain knowledge of current and emerging trends in analysis methodology.
- Provide bioinformatics expertise in the design of experiments and studies, including research proposal development and sample size determination.
- Identify, evaluate and incorporate relevant algorithms and software pipelines by reviewing bioinformatics and computational biology literature.
- Summarize data analysis results in a form suitable as the basis for the first draft of written reports and make preliminary interpretations of the data.
- Distribute academic literature, presentations and reports on research findings to update RUHS-PH about new issues, solutions and other topics; collaborate with internal and external partners to create studies that support RUHS-PHs mission and bring value to citizens of Riverside County.

**RECRUITING GUIDELINES:**

Education: Graduation from an accredited college or university with a bachelor's degree in a recognized field of science or learning which is directly related to the duties of the position including, but not limited to, biostatistics, quantitative social science, molecular genetics, statistical genetics, translational genomics, or bioinformatics. A master's or doctoral degree (PhD) is highly desired but not required.

Experience: Two years of professional experience in at least two domains characteristic of bioinformatics, including at least one biological/biomedical science that included hands-on laboratory experience in genome sequencing and one quantitative/informatics/computing science. (A master's degree from an accredited college or university in a related field may substitute for one year of the required experience. A PhD in a related field may substitute for two years of the required experience.)

Knowledge of: Principles, concepts, methods, and standards of research; scientific approach and methodologies; programming and/or scripting languages (i.e., R, MATLAB, Perl, SAS, Python, Linux shell scripting); standard informatics tools (i.e., Samtools, BWA, IGV, Ensembl, UCSC, VCFTools, GATK, MUMMer, Mauve, Figtree, PhyML, Genome Browser, NCBI); current and emerging trends in advanced analysis for scientific application; scientific reporting and manuscript; software engineering practices including testing, continuous integration, containerization, and version control.

Ability to: Apply a range of advanced statistical techniques in support of scientific research studies and/or experiments; process computer data and format and generate reports; consult with scientific investigators, interpret research requirements and determine analysis strategies; plan, create, program, and manage complex computer databases; analyze, interpret and draw conclusions from complex statistical information; work in a team environment to design, analyze and report on research projects; develop and maintain bioinformatic pipelines for NGS analysis in a CLIA laboratory or genomics core environment.

**OTHER REQUIREMENTS:**

License: Possession of a valid California Driver's License may be required

**PRE-EMPLOYMENT:**

All employment offers are contingent upon successful completion of both a pre-employment physical exam, including a drug/alcohol test, and a criminal background investigation, which involves fingerprinting. (A felony or misdemeanor conviction may disqualify the applicant from County employment.)

**PROBATIONARY PERIOD:**

As an Approved Local Merit System, all County of Riverside employees, except those serving "At Will," are subject to the probationary period provisions as specified in the applicable Memorandum of Understanding, County Resolution, or Salary Ordinance. Temporary and Per Diem employees serve at the pleasure of the agency/department head.