### **Advanced Molecular Detection**

National investment to advance genomic sequencing capacity

#### **Western Region**



# California

Total Investment<sup>1</sup>: \$42,495,968\*

State and Local Investment: \$37,487,291

Research Awards: \$5,008,677

CDC's Advanced Molecular Detection (AMD) program builds and integrates laboratory, bioinformatics, and epidemiology technologies across CDC and nationwide. Since 2014, AMD has received support from Congress through a \$30 million per year appropriation to implement these technologies in public health programs. Through investments in AMD technologies, CDC is improving both public health outcomes and preparedness in dozens of areas including foodborne disease, influenza, antibiotic resistance, hepatitis, pneumonia, and meningitis.

With funding from the American Rescue Plan Act of 2021, the AMD program has developed a multi-year plan to expand its support to state, local, and territorial public health laboratories with more staff and resources to collect specimens for COVID-19 testing, sequence them to identify and track SARS-CoV-2 variants, and share data, now and future years. The investment above includes supplemental funding for facility construction and renovation needs.

#### Workforce Development

California is part of the Western region. In 2018, the AMD program established seven workforce development regions across the country. Each region has an AMD training lead and a bioinformatics lead. This provides a network of customized AMD support which helps develop skills and provides training assistance to public health labs across the country.

Through the Western region's training resources, California receives lab support on data analysis and how to interface with IT departments. They also receive both pathogen-specific training and cross-cutting instruction to help staff develop the critical skills necessary to extract, analyze, and interpret sequencing data.

\* Investments listed above do not include <u>Los Angeles County</u> which receives direct financial support through the ELC Cooperative Agreement.

<sup>&</sup>lt;sup>1</sup> Funding to public health departments includes support from the American Rescue Plan of 2021 and AMD annual appropriations. Awards to university and research partners in 2020 and early 2021 were funded through appropriations supporting the COVID-19 response.



## **Advanced Molecular Detection**

National investment to advance genomic sequencing capacity

#### University and Research Partners in California

These awards are intended to fill knowledge gaps and promote innovation in the U.S. response to the COVID-19 pandemic. Funding awards are determined through a competitive selection process based on scientific needs and available funds.

#### **University of California, San Francisco** (\$653,652)

#### Actionable real-time genomic surveillance of SARS-CoV-2 in California

This project will create an integrated network that combines rapid viral sequencing with epidemiologic and clinical data. It will use existing partnerships to establish a real-time network that can track and monitor the evolution and spread of SARS-CoV-2 in California.

#### **University of California, Santa Cruz** (\$1,877,616))

## Empowering comprehensive SARS-CoV-2 strain surveillance and transmission pattern inference for public health practitioners

This project will create a platform to simplify interactions with genomic data, enabling users to rapidly cross-reference and identify genomic variation data sets in a unified setting. The platform will provide downloads of SARS-CoV-2 evolutionary maps in both scientific diagrams and in plain language to facilitate widespread use.

#### Scripps Research Institute (\$2,477,409)

#### Genomic sequencing of SARS-CoV-2 to investigate local and cross-border emergence and spread

This project will expand collaboration with California laboratories to improve laboratory and bioinformatic methods for cost-effective, high-throughput sequencing. The project includes collaboration with the CDC SPHERES program, California COVIDNet, and county and local public health laboratories.



