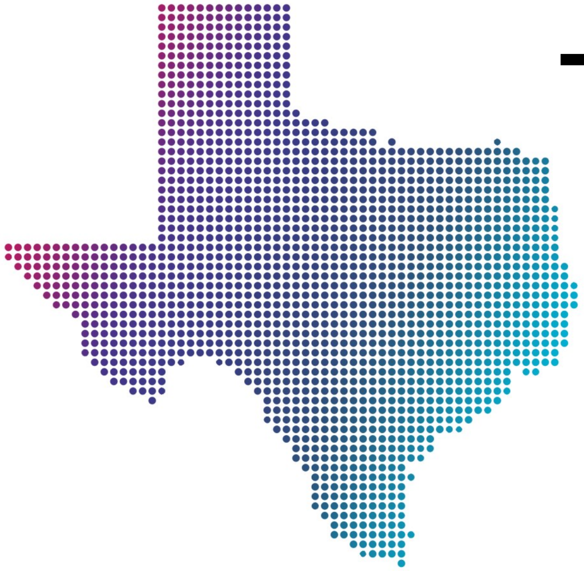
Advanced Molecular Detection

National investment to advance genomic sequencing capacity

Mountain Region



Texas

Total Investment[1]: $29,467,924*

State and Local Investment: $28,124,647

Research Awards: $1,343,277

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—now a $40 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 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

Texas is part of the Mountain region. In 2018, the AMD program established 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 Mountain region's training resources, Texas 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 Houston, TX which receives direct financial support through the ELC Cooperative Agreement.

[1] Funding to public health departments includes support from the American Rescue Plan of 2021 and AMD annual appropriations in FY2021-2023. Awards to university and research partners were funded through appropriations supporting the COVID-19 response.

www.cdc.gov/amd

September 5, 2023

Advanced Molecular Detection

National investment to advance genomic sequencing capacity

University and Research Partners in Texas

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.

Rice University – Texas
Harvest variants: enhancing tools for integrated, collaborative variant tracking of SARS-CoV-2 (2021—$630,759)
This project will design and develop genomic sequencing software that integrate SARS-CoV-2 genomic data sets. The software integration will enable users to download real-time virus data and variant analyses. Users will also have access to support and feedback tools.

University of Texas Medical Branch at Galveston
SARS-CoV-2 sequencing and surveillance at UTMB using "Tiled-Click Seq" (2021—$712,518)
This project will provide genomic surveillance of current and future SARS-CoV-2 variant samples collected in University of Texas Medical Branch clinics. Scientists will focus on samples of individuals who test positive for SARS-CoV-2 but were vaccinated or were previously infected.

University of Texas School of Public Health at Houston and Houston Health Department
"Molecular epidemiology and transmission dynamics of SARS-CoV-2 in Houston, TX" (Collaboration with the University of Georgia)
This project will develop a genome sequencing and molecular epidemiology pipeline for SARS-CoV-2 samples collected in Houston, TX, the fourth largest city in the US. It will develop computational approaches for integrating community-based surveillance and contact tracing with phylogenetic and epidemic network analysis to identify transmission clusters.