

Advanced Molecular Detection

National investment to advance genomic sequencing capacity

Northeast Region



Connecticut

Total Investment¹: \$5,929,534

State and Local Investment: \$3,101,615

Research Awards: \$2,827,919

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 an annual appropriation of \$30 million—which was raised to \$35 million in 2022—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.

Workforce Development

Connecticut is part of the Northeast 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 Northeast region's training resources, Connecticut 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.

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



www.cdc.gov/amd



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University and Research Partners in Connecticut

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.

Yale School of Public Health

Transmissibility and immune escape of emerging SARS-CoV-2 variants (2022—\$1,980,573)

Researchers will combine data from genomic surveillance together with clinical, experimental laboratory, and epidemiological data with the overarching goal of better understanding SARS-CoV-2 variant evolution, emergence, and transmission to aid response planning and inform vaccine dosing and design strategies in real time.

Virus genomics and human mobility to reveal the patterns of SARS-CoV-2's spread (2020—\$847,346)

This genomic epidemiologic study will integrate virus evolution and human behavior on regional and national scales. Revealing SARS-CoV-2 genetic diversity within New England and patterns of virus spread across the region and the country will help assess the effectiveness of intervention strategies for containing SARS-CoV-2. Along with providing continuous monitoring, this study will help inform future decision-making and create a new roadmap for responding to pandemic threats.

