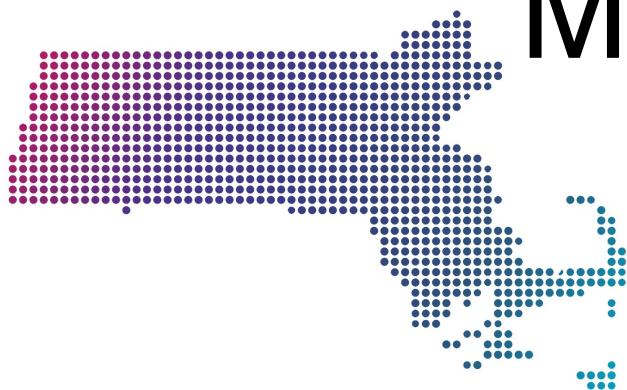


Advanced Molecular Detection

National investment to advance genomic sequencing capacity

Bioinformatic Regional Resource Lead and AMD Training Lead for the Northeast Region



Massachusetts

Total Investment¹: \$9,792,148

State and Local Investment: \$5,414,658

Research Awards: \$4,377,490

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.

Workforce Development

Massachusetts 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

Massachusetts' **Bioinformatic Regional Resource Lead** acts as a regional consultant. They provide support to labs within the region on data analysis and how to interface with IT departments. Its **AMD Training Lead** provides support to labs in the region on pathogen-specific training and cross-cutting AMD training 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 in 2020 and early 2021 were funded through appropriations supporting the COVID-19 response.



www.cdc.gov/amd



January 26, 2022

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University and Research Partners in Massachusetts

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.

Broad Institute, Massachusetts General Hospital, and Massachusetts Department of Public Health (\$4,377,490)

Real-time SARS-CoV-2 genomic surveillance to support clinical and public health response and monitor functionally relevant mutations

This project will enhance SARS-CoV-2 genomic surveillance in Massachusetts. Coupling a logical sampling plan with epidemiological and clinical data will enhance understanding of regional transmission patterns and link genetic variants to clinical outcomes. It will support the broader public health genomics community by developing bioinformatics tools for open data analysis, easy data sharing, and privacy controls.

