

Advanced Molecular Detection

National investment to advance genomic sequencing capacity

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



Minnesota

Total Investment¹: \$6,162,145

State and Local Investment: \$5,233,272

Research Awards: \$928,873

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

Minnesota is part of the Central 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.

Minnesota's **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 Central 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



Advanced Molecular Detection

National investment to advance genomic sequencing capacity

University and Research Partners in Minnesota

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 Minnesota (\$928,873)

Minnesota sequencing of SARS-CoV-2: a unified state and region-wide SARS-CoV-2 genomic surveillance effort

This project will establish the University of Minnesota Genomics Center (UMGC) as a regional SARS-CoV-2 sequencing hub and facilitate a low-cost and high-output genomic sequencing method. In addition, the project will provide research on how the host and virus interact with one another during infection and the potential for reinfection.

