



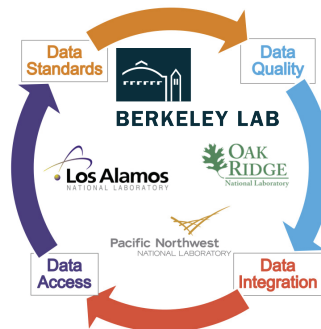
The National Microbiome Data Collaborative

Fact Sheet

Empowering the research community to harness microbiome data exploration and discovery

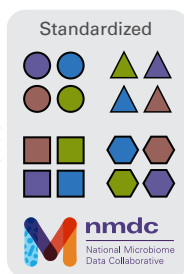
Who We Are

Our team takes a multidisciplinary approach to microbiome research and data science. We leverage capabilities, expertise, and resources available across four DOE National Laboratories: Lawrence Berkeley National Laboratory (lead lab), Los Alamos National Laboratory, Pacific Northwest National Laboratory, and Oak Ridge National Laboratory.

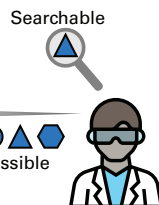


What We Do

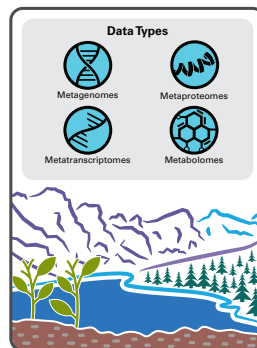
Microbes living in vast, complex communities called microbiomes impact much, if not all, of our world - environmental sciences, health, agriculture, energy, and in natural and built environments. Yet, we know very little about how they work and how they impact the planet. The NMDC aims to deliver a set of unique microbiome data science capabilities aligned with the FAIR Data Principles - making data Findable, Accessible, Interoperable and Reusable. We are funded as a 39-month pilot program to develop a collaborative community-driven data science ecosystem.



Standards with expert curation
Provide rich contextual data and standard vocabularies.



Gold-standard workflows
Develop new workflows that leverage high-performance computing.



Data access and integration
Iteratively develop a graphical web-based interface that streamlines search, data exploration, and discovery.

Partnerships

The success of the NMDC relies on collaborative partnerships and broad community engagement. We have developed a robust strategic engagement plan for research teams, scientific societies, funding agencies, and publishers.



By the Numbers

data.microbiomedata.org

- 17** Terabytes of multi-omics data linked by samples
- 8** State-of-the-art bioinformatic workflows
- 5** Data types
- 2** Flagship DOE Office of Science User Facilities



Research Community

Recent community survey results highlight the need for training and focus on data standards. The survey also captured the broad, cross-cutting nature of microbiome research across domains of science and sectors.

