



National Microbiome Data Collaborative

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NMDC

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Lead: Emiley
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Vision:

Empower the research community to harness microbiome data exploration and discovery through a collaborative integrative data science ecosystem.



Alfred P. Sloan
FOUNDATION

DOE BSSD has tasked LBNL with leading a multi-Lab effort to develop a community-centric NMDC framework to address emerging needs in environmental microbiome science

- Provide a framework with sufficient agility to **enable complete data access, advanced analyses, and tool development** for addressing microbiome research
- Adhere to **FAIR principles**
- Empower the broader scientific community to **access, analyze, share and reproduce** microbiome data to promote reproducibility and enhance cross-study comparison
- Allow **integration of empirical, computational, and mechanistic modeling tools** for prediction and management of microbial communities' dynamics and activities
- Take advantage of **HPC systems** available within the DOE complex
- Facilitate **incorporation of new or updated information** (i.e. annotation) as it becomes available
- **Maintain contact** with the larger microbiome research community to assess changing needs and/or capabilities

