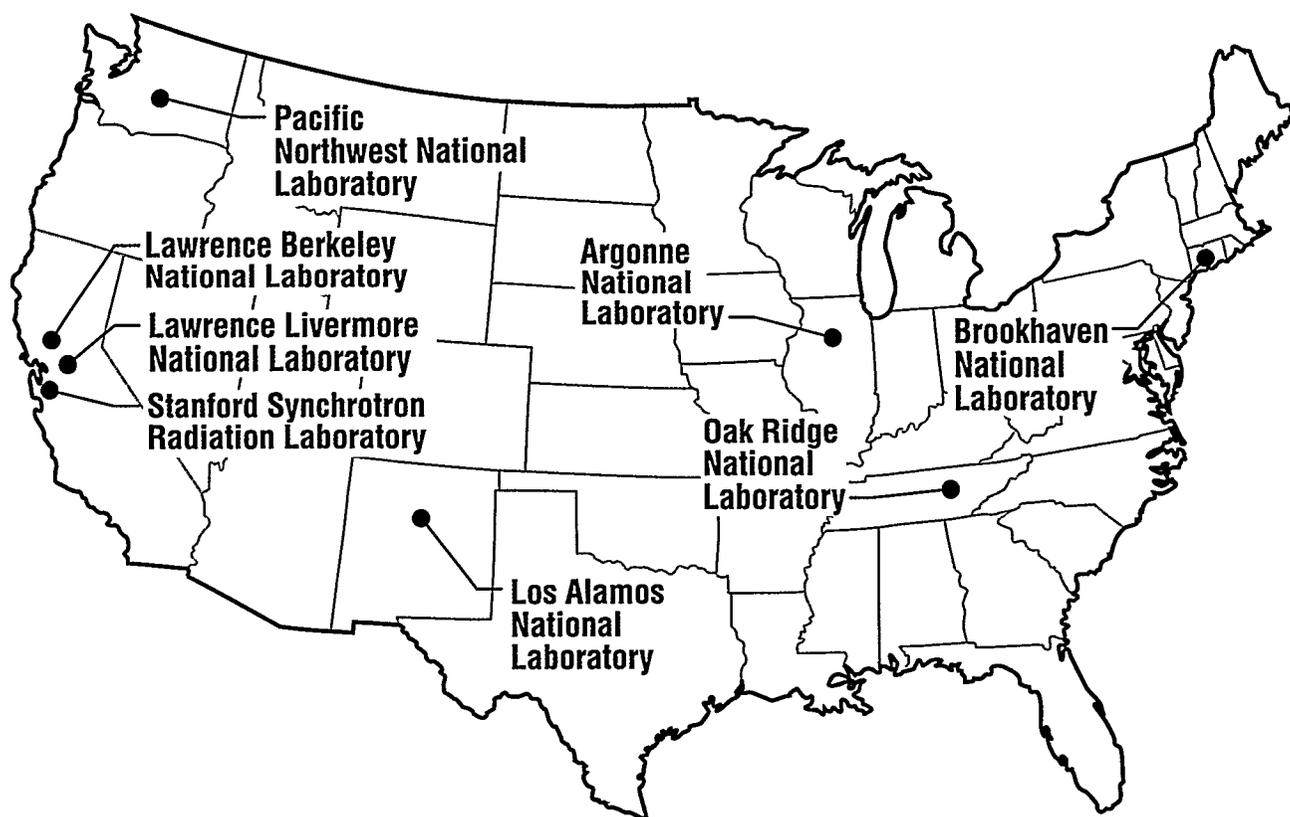


Major DOE User Facilities and Resources Relevant to Molecular Biology Research

Although the genome program is contributing fundamental information about the structure of chromosomes and genes, other types of knowledge are required to understand how genes and their products function. Three-dimensional protein structure studies are still essential because structure cannot be predicted fully from its encoded DNA sequence.

To enhance these and other studies, DOE builds and maintains structural biology user facilities that enable scientists to gain an understanding of relationships between biological structures and their functions, study disease processes, develop new pharmaceuticals, and conduct basic research in molecular biology and environmental processes. These resources are used heavily by both academic and private-sector scientists.

Other important resources available to the research community include the clone libraries developed in the National Laboratory Gene Library Project and distributed worldwide, the GRAIL Online Sequence Interpretation Service, and the Mouse Genetics Research Facility.



Argonne National Laboratory
Advanced Photon Source

Brookhaven National Laboratory
High-Flux Beam Reactor
National Synchrotron Light Source
Protein Structure Data Bank
Scanning Transmission Electron Microscope

Lawrence Berkeley National Laboratory
Advanced Light Source
Center for X-Ray Optics
National Energy Research Scientific Computing Center

Lawrence Livermore National Laboratory
National Laboratory Gene Library Project

Los Alamos National Laboratory
National Flow-Cytometry Resource
National Laboratory Gene Library Project
Neutron-Scattering Center

Oak Ridge National Laboratory
GRAIL, Online Sequence Interpretation Service
Mouse Genetics Research Facility

Pacific Northwest National Laboratory
Environmental Molecular Sciences Laboratory

Stanford University
Synchrotron Radiation Laboratory

