The National Library of Medicine (NLM) is a global leader in biomedical informatics and computational health data science, and the world's largest biomedical library. As 1 of the 27 Institutes and Centers at NIH, NLM's research and information services support scientific discovery, health care, and public health.

A PLATFORM FOR BIOMEDICAL DISCOVERY

The 2017-2027 NLM strategic plan includes three goals:

1. Accelerate discovery and advance health through data-driven research;
2. Reach more people in more ways through enhanced dissemination and engagement; and
3. Build a workforce for data-driven research and health.

Implementation of the strategic plan enables NLM to support and respond to NIH-wide priorities and support discovery and public health globally.

Funding History

$500M, $400M, $300M

$337 (2015), $396 (2016), $407 (2017), $428 (2018), $441 (2019), $457* (2020), $461 (2021)

* Note: FY 2020 does not include $10 million of supplemental funding from the Coronavirus Aid, Relief, and Economic Security (CARES) Act.
FY 2022 CR $464M and FY 2023 budget request $472M.

Annual Users of NLM Services

Unique Users: 1,600M, 1,200M, 800M
Fiscal Year: 2018, 2019, 2020, 2021
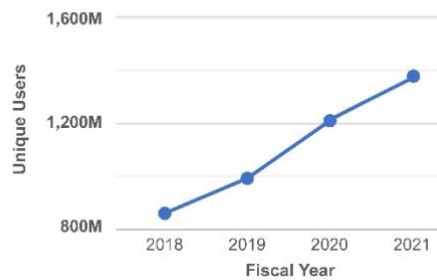

Patricia Flatley Brennan, R.N., Ph.D.
Director of the NLM since 2016, Dr. Brennan spearheaded the development of a 10-year strategic plan that envisions NLM as a platform for biomedical discovery and data-powered health. Combining her background in engineering, information technology, and clinical nursing practice, Dr. Brennan positions NLM and its world-class genomic databases, innovative information services, and vast literature resources to serve science and society, and to guide advances in data science and data-driven discovery.

NLM CONDUCTS AND FUNDS RESEARCH

NLM's vibrant intramural research program conducts innovative research and training in computational biology and computational health sciences. NLM's extramural grants support original research projects and advanced training in biomedical informatics and data science.

Intramural Researchers at NLM

Develop computational methods to characterize functions of the non-coding part of the human genome.

Explore novel applications of artificial intelligence to advance interpretation of medical images to detect health issues such as eye disease.

Apply network analysis approaches to protein-protein interactions to predict interactions between individual molecules in human diseases.

Extramural Researchers Across the Nation

Apply artificial intelligence and machine learning to predict treatment effectiveness and inform personalized medicine approaches.

Leverage high-throughput sequencing data from wastewater and data from other sources for virus surveillance and public health protection.

Support natural language processing of medical record data to improve patient care and monitoring.

21st CENTURY LIBRARY

Every day, millions of scientists, health professionals, and members of the public use NLM's online information resources to translate research results into new treatments, access our collections, develop new products, inform clinical decision making, and improve public health.

PubMed The most heavily used biomedical literature citation database in the world, containing more than 33 million citations.

PMC *PubMed Central* Digital archive of nearly 7.5 million freely accessible, full-text biomedical and life sciences journal articles, including more than 190,000 coronavirus-related articles and more than 2,700 preprint articles featuring NIH-funded research.

ClinicalTrials.gov The world's largest clinical trial registry and results database, with nearly 400,000 registered clinical studies and more than 51,000 results summaries.

Sequence Read Archive The world's largest publicly available repository for high-throughput sequencing data, comprising more than 50 petabytes of data which are also freely available through commercial cloud services.

MedlinePlus NLM's trusted and authoritative source of consumer health information accessed by more than 400 million users annually.

Terminology Standards NLM is the central coordinating body within HHS for clinical terminology standards for health data interoperability.

BIOMEDICAL INFORMATICS TRAINING

NLM funds research training programs in biomedical informatics and data science at 16 universities across the country that enroll approximately 200 predoctoral and postdoctoral trainees.

Grant supplemental funding allows training programs to work with library and information schools, and partner with minority-serving institutions to teach and apply data science research skills.

NLM also provides short-term research experiences for undergraduates interested in careers in biomedical informatics and data science.

OUTREACH AND ENGAGEMENT

NLM leverages its Network of the National Library of Medicine (NNLM®) of more than 8,800 academic health science libraries, hospital and public libraries, and community organizations to improve access to health information for all. NNLM offers training to support effective use of NLM information resources by librarians, health professionals, researchers, and the public. NNLM currently operates through seven regions across the United States.

FUTURE INITIATIVES

NLM will continue to lead the development of analytics that uncover novel biomedical patterns form large genetic and literature databases, create innovative ways to reach scientists and society with trusted health information, and develop health data literacy among scientists, clinicians, librarians, and the public. NLM will:

Accelerate biomedical informatics and computational health data science. Through intramural and extramural research investments, NLM will create strategies to support efficient and accurate exploration of large biomedical databases, and generate new analytical methods and models to gain insights from clinical data.

Support public accountability and open science. NLM will leverage its expertise in creating high-quality, sustainable, and secure databases to make biomedical research information and data accessible to scientists, clinicians, and the public.

Modernize NLM's infrastructure and organization. NLM will build a 21st century digital library that offers literature, data, analytical models, and new approaches to scientific communication that are accessible, sustainable, and available 24 hours a day, 7 days a week.

Contribute to NIH- and government-wide priorities. NLM will continue to share its scientific, policy, and program leadership and expertise in data science, data management, infrastructure, security, and workforce development to support U.S. priorities in economic competitiveness empowered by data science, artificial intelligence, and open science.