Update from the National Library of Medicine

Dianne Babski
Director, User Services and Collection Division
National Library of Medicine, National Institutes of Health,
US Department of Health and Human Services
dianne.babski@nih.gov

The National Library of Medicine (NLM), one of the 27 Institutes at the National Institutes of Health (NIH) serves as an engine for innovation and discovery as the world's largest biomedical library, and as a leader in research in computational health informatics. Our mission is to collect, preserve and disseminate trusted biomedical literature and health information to improve public health. We sponsor research, development, and training in data science, information science, biomedical informatics, and health sciences librarianship, all of which facilitate open science and drive innovation through a wide range of products, resources, and tools that we make available. Over the course of the last year (see Vol. 19, No. 1 (2023)) NLM has made concrete efforts to strengthen our leadership and staff capacity, to carefully and strategically plot a course towards a future that anticipates users' needs, and to continuously improve access and discovery to biomedical information.

Leadership announcements

Fig 1. *Monica M. Bertagnolli, M.D.*

The NIH is thrilled to welcome Monica M. Bertagnolli, M.D. as the 17th director. She is the first surgeon and the second woman to hold the position. NLM's leadership team has also had some exciting developments these past several months. NLM Director, Patricia Brennan R.N. PhD, retired from NLM and federal service on September 30, 2023. Stephen Sherry, Ph.D., who currently serves as Director of NLM's National Center for Biotechnology Information and NLM Associate Director for Scientific Data Resources, is serving as the Acting NLM Director while a national search is conducted for the next NLM Director.

Jerry Sheehan, previously serving as our Director for Policy and External Affairs, has accepted a prestigious position at the Organisation for Economic Co-operation and Development (OECD) in Paris, stepping into the role of Director for Science, Technology, and Innovation. To continue our mission with renewed vigor, the NLM has restructured his former position into two distinct roles to better address our mission. Subsequently, Mike Huerta has been appointed as the NLM Acting Deputy Director for Operations and Innovation, and Dina N. Paltoo, PhD assumed the critical role of NLM Acting Deputy Director of Policy and External Affairs. These changes underscore our commitment to innovation, operational excellence, and policy leadership. Finally, Richard H. Scheuermann, PhD
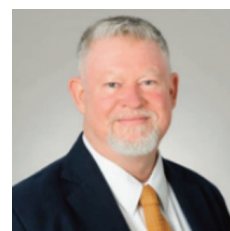

Fig 2. *Stephen Sherry, Ph.D.*

has been selected to be NLM's new Scientific Director to oversee NLM's Intramural Research Program, aiming to optimize resources and align with high-priority scientific objectives consistent with NLM and NIH strategies. This leadership change is anticipated to propel NLM's research portfolio and contribute significantly to the broader biomedical research community.

Library Operations is now the User Services and Collection Division!

On January 1, 2024, Library Operations (LO) became the User Services and Collection Division (USCD). This milestone marks the successful completion of the first goal of the USCD 2021-2036 Long Range Plan to Create a Modernized Organizational Structure. The reorganization fulfills our future vision to steward a unified collection, focus on meeting current and future information needs from a diverse customer base, respond in a nimble manner to technology advancements, and create operational efficiencies.

While we are changing the way we work, our commitment remains to collect, curate, and connect the world to scholarly biomedical literature, health information and data resources. USCD's updated organizational structure includes four functionally-aligned Branches. The Collection Branch selects, acquires, and preserves biomedical resources in all formats. The Health Data Standards Branch develops, maintains, and distributes health data standards and terminologies products and services. The Engagement Branch provides access to and fosters engagement with NLM collections, data, standards, and resources. And finally, The Discovery Branch describes, indexes, and curates the NLM collections and other trusted health information, data, and resources.
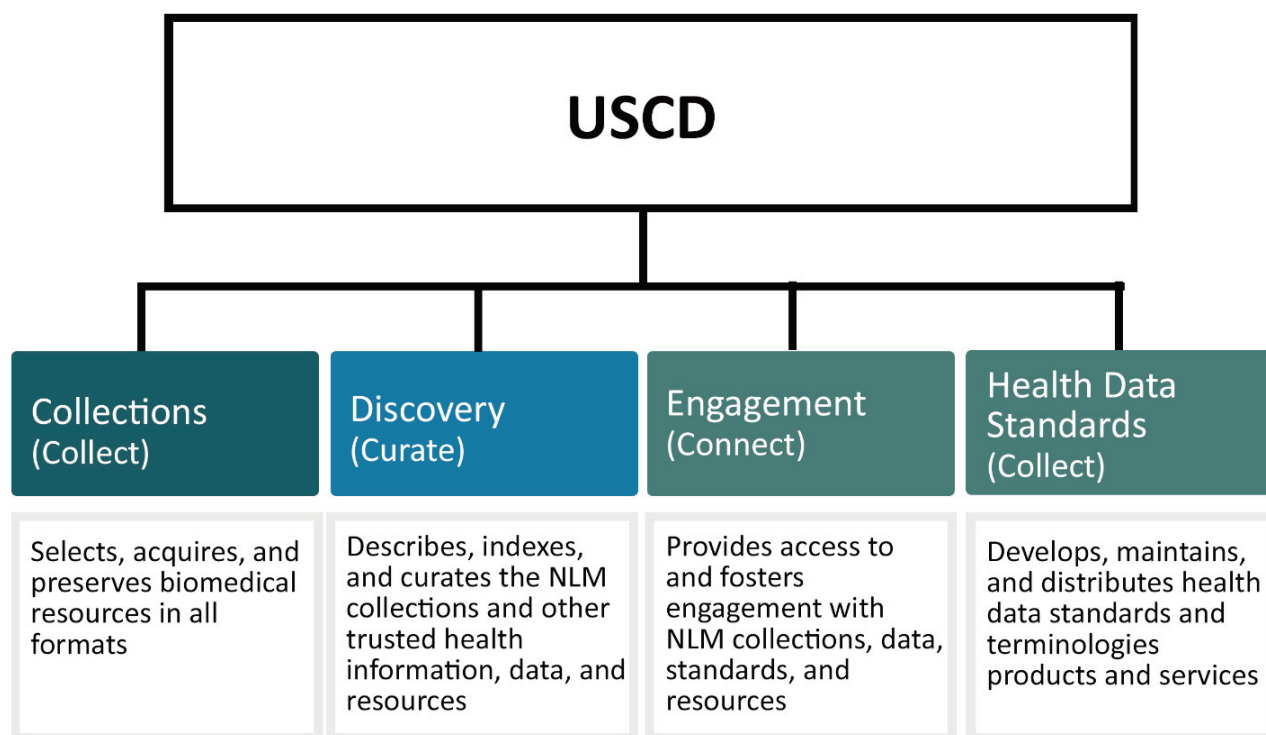

Fig 3. *USCD organizational structure and branch descriptions.*

Improving access and discovery

NLM remains focused on policy and technological advancements to increase findability, accessibility, and interoperability of its vast and growing collection for research discovery. To that end, we have some exciting product updates.

This year, NLM launched the Dataset Catalog to improve the discoverability and reuse of research data by helping users to search, find and connect biomedical datasets across multiple repositories through a single, user-friendly, "all-in-one" tool. NLM developed the DATaset Metadata Model, or DATMM, to provide information for describing data in datasets and repositories across the biomedical ecosystem. The Dataset Catalog serves as the interface to leverage DATMM in biomedical dataset discovery. During this beta phase, the public is invited to explore this tool for themselves, share with colleagues and submit feedback to NLM (via the vertical blue "Give Feedback" button along the right-hand side of the Dataset Catalog website).

Our CGR project, now in its fourth year, facilitates reliable comparative genomics analyses for all eukaryotic organisms in collaboration with the genomics community. It does this through an interoperable suite of National Center for Biotechnology Information (NCBI) repositories and knowledge bases offering high-value data, tools, and interfaces compatible with community-provided organism resources.

The ClinicalTrials.gov modernization project is in its fifth and final year. We will hit a half million records this year. Users have significantly shifted to the modernized ClinicalTrials.gov website in 2023, and the classic ClinicalTrials.gov will be retired this spring. This year, you can look forward to continuous updates and refinements, new results reporting components, and continued engagement, usability testing, and evaluation.

NLM continues to update and improve PubMed and PubMed Central (PMC). Proximity searching is now available in PubMed for the Affiliation field in addition to the Title and Title/Abstract fields. The "Sort by" drop-down menu used to change the sort order of PubMed search results has been moved out of the "Display options" button and now appears as a standalone feature at the top of the search results page, making it easier and faster to change the sort order of your search results. The GR field has also been renamed from "Grant Number" to "Grants and Funding" to increase the overall transparency of funding information in PubMed.

PMC has begun including Spanish language journals. PMC's Language Guidelines had previously required that the full-text content of a non-MEDLINE journal be published largely in English to be eligible to apply to the archive. This update is part of a larger goal to expand the diversity of content in PMC - and thereby PubMed - by being more inclusive of non-English language journals. PMC is also wrapping up phase 2 of the NIH Preprint Pilot. A project of NLM, the NIH Preprint Pilot was launched in 2020 to explore new approaches to increase the discoverability of NIH-supported research results, with the first phase focusing on NIH-supported research on COVID-19 and the SARS-CoV-2 virus. This second phase expanded the scope of the Pilot to integrate over 14,000 preprints into PubMed and PMC, enhancing accessibility to NIH-funded research.

NLM continues to innovate in data science and embrace Artificial Intelligence (AI) to drive impact for its users. An advanced machine learning algorithm called MTIX automates the indexing of Medical Subject Headings (MeSH) terms in MEDLINE citations, accelerating and scaling the indexing throughput amid a growing collection of biomedical literature in PubMed. NLM recently kicked off a 6-month Generative AI pilot focused on testing large language models for the benefit of internal process improvement, while also developing workforce skills and a supportive community of practice. Pilot participants from across NLM are building proof-of-concepts for 10 well-defined use cases in research and development, customer response, metadata transformation, grant analysis, and much more.

Our Network of the National Library of Medicine (NNLM) amplifies these efforts through its 8,000+ health science libraries and information centers extending into the public communities we serve. Check out our training and engagement programs that are free and accessible to users across the globe.

NIH Director Dr. Bertagnolli has set a vision that emphasizes inclusivity, patients as partners in scientific discovery, and a commitment to continuous innovation, saying "Our work is not finished when we deliver scientific discoveries, our work is finished when all people are living long and healthy lives." We remain committed to our core mission activities to collect, preserve, and disseminate quality biomedical literature and health information while we prioritize steps aligned to the vision of our NIH and NLM leadership in making NLM a data-science hub for expanded biomedical data, research, and data use. Thank you for being a part of our journey!