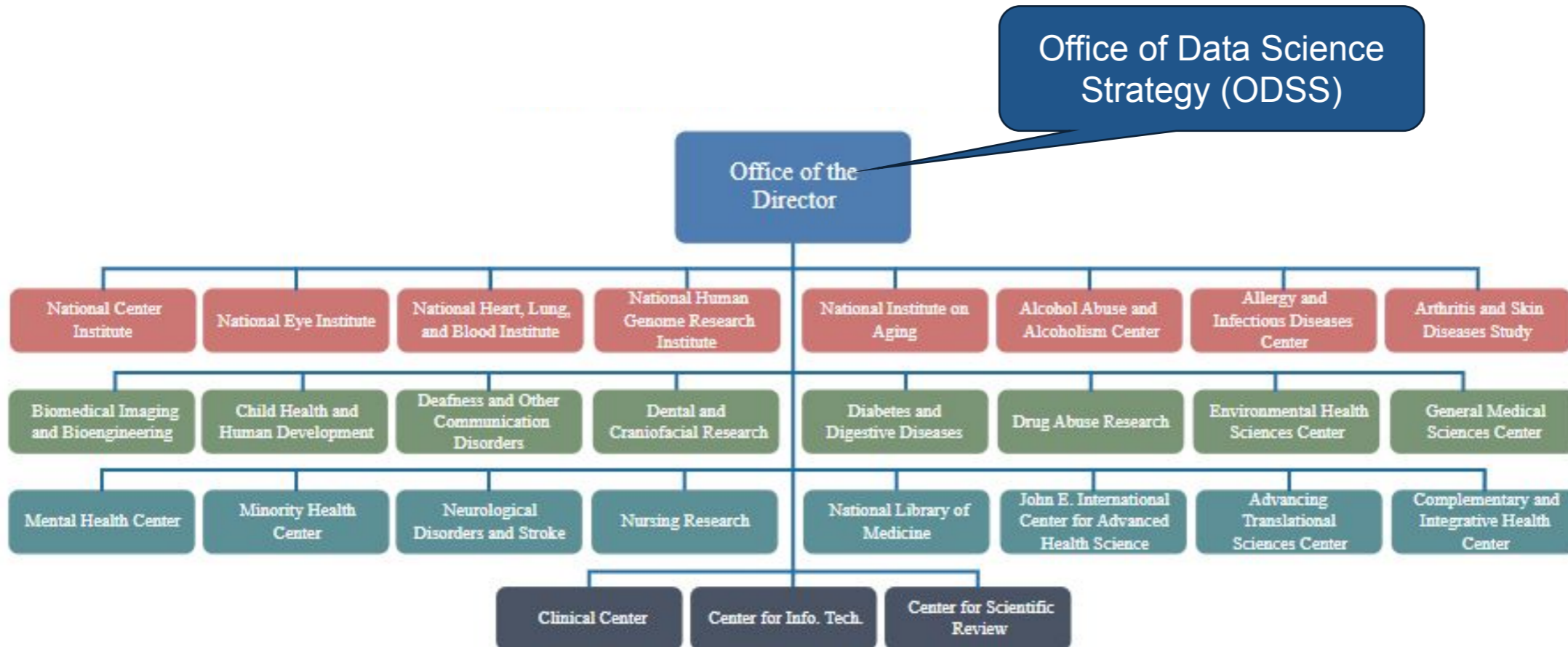


NIH Data Science Funding Opportunities

Fenglou Mao, Ph.D
Office of Data Science Strategy
National Institutes of Health

2/23/24

National Institutes of Health



New NIH Data Science Strategic Plan

- **Goal 1:** Improve Capabilities to Sustain the NIH Policy for Data Management and Sharing
- **Goal 2:** Develop Programs to Enhance Human Derived Data for Research
- **Goal 3:** Provide New Opportunities in Software, Computational Methods, and Artificial Intelligence
- **Goal 4:** Support for a Federated Biomedical Research Data Infrastructure
- **Goal 5:** Strengthen a Broad Community in Data Science
- [Request for Information \(RFI\): Inviting Comments on the NIH Strategic Plan for Data Science 2023-2028](#), due date: 03/05/24

ODSS High-Priority Areas

- Integrated Infrastructure and Emerging Technology (IJET)
 - AI/ML
 - Cloud Computing
 - NIH Cloud Platform Interoperability (NCPI)
 - Search & Discovery
 - Digital Twins
 - Quantum Computing
- FAIR Data & Resources
 - Software/Software Workforce Development
 - Data Repository
- Clinical Informatics
- Training, Workforce Initiatives and Community (TWICE)
- COVID & Policy
- AIM-AHEAD - Artificial Intelligence/Machine Learning Consortium to Advance Health Equity and Researcher Diversity (AIM-AHEAD)

Personal Health Informatics for Delivering Actionable Insights to Individuals (R01 Clinical Trial Optional)

- **Link:** [PAR-23-245](#)
- **Funding Mechanism:** R01
- **Primary IC:** NLM, co-signed by NIMH
- **Due dates:** three standard due dates each year: Feb. 5, Jun. 5, Oct. 5 until Oct. 5, 2026
- **Purpose:** The purpose of this Notice of Funding Opportunity (NOFO) is to advance the development of novel informatics and data science approaches that can help **individuals** understand and improve their health through **actionable insights**.
- **Budget:** \$250K direct cost per year for up to four years

Notice of Special Interest: Leveraging Existing and Accessible Datasets for Implementation Research Strategies and Testing - LEAD FIRST

- **Link:** [NOT-HL-23-120](#)
- **Funding Mechanism:** R01
- **Primary IC:** NHLBI
- **Due dates:** three standard due dates each year: Feb. 5, Jun. 5, Oct. 5 until Feb. 5, 2025
- **Purpose:** The goal of this Notice of Special Interest (NOSI) is to encourage research that maximizes the utility of **local-level community datasets** by surfacing community insights to inform **dissemination and implementation (D&I)** research which can lead **to actionable and sustainable change** in communities.
- **Budget:** Application budgets are not limited but need to reflect the actual needs of the proposed project, for up to five years

BRAIN Initiative Connectivity across Scales Data Coordinating Center (BRAIN CONNECTS DCC) (U24 Clinical Trial Not Allowed)

- **Link:** [RFA-NS-24-028](#)
- **Funding Mechanism:** U24
- **Primary IC:** NIH, and multiple ICs
- **Due dates:** August 21, 2024
- **Purpose:** This Notice of Funding Opportunity (NOFO) solicits applications for one or more **Data Coordinating Centers** (DCCs) to support BRAIN CONNECTS, a networked consortium of Comprehensive Centers and Specialized Projects funded under RFA-NS-22-047, RFA-NS-22-048, and RFA-NS-22-049.
- **Budget:** Application budgets are not limited but need to reflect the actual needs of the proposed project, for up to five years

Mobile Health: Technology and Outcomes in Low and Middle Income Countries (R21/R33 - Clinical Trial Optional)

- **Link:** [PAR-23-318](#)
- **Funding Mechanism:** R21/R33
- **Primary IC:** FIC and co-signed by NIH ICs
- **Due dates:** March 22, 2024; March 21, 2025; March 20, 2026
- **Purpose:** The purpose of this Notice of Funding Opportunity (NOFO) is to encourage exploratory/developmental research applications that propose to study the development, validation, feasibility, and effectiveness of innovative **mobile health (mHealth) interventions** or tools specifically suited for **low- and middle-income countries** (LMICs) that utilize new or emerging technology, platforms, systems, and/or analytics.
- **Budget:** \$125K direct cost per year in R21 phase, and \$200K direct cost per year in R33 phase; R21 is up to 2 years, and R33 is up to 3 years.

Four NCI NOFOs on Informatics Technologies for Cancer Research and Management

- **Links:** [RFA-CA-24-016](#), [RFA-CA-24-017](#), [RFA-CA-24-018](#), [RFA-CA-24-019](#)
- **Funding Mechanism:** R21, U01, U24, U24, respectively
- **Primary IC:** NCI
- **Due dates:** June 11, 2024; November 15, 2024
- **Purpose:**
 - RFA-CA-24-016: Development of **Innovative Informatics Methods and Algorithms** for Cancer Research and Management (R21 Clinical Trial Optional)
 - RFA-CA-24-017: **Early-Stage Development** of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)
 - RFA-CA-24-018: **Advanced Development** of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)
 - RFA-CA-24-019: **Sustained Support** for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)
- **Budget:**
 - RFA-CA-24-016: The combined budget for direct costs for the two-year project period may not exceed \$275,000. No more than \$200,000 may be requested in any single year.
 - RFA-CA-24-017: Budgets are limited to \$300,000 Direct Costs (excluding consortium F&A) per year, for up to three years.
 - RFA-CA-24-018: Budgets are limited to \$600,000 Direct Costs (excluding consortium F&A) per year, for up to five years.
 - RFA-CA-24-019: Application budgets are not limited but need to reflect the actual needs of the proposed project, for up to five years.

Harnessing Artificial Intelligence and Polypharmacology to Discover Pharmacotherapeutics for Substance Use Disorders (R41/R42 Clinical Trials Not Allowed)

- Link: [RFA-DA-25-053](#)
- Funding Mechanism: R41/R42 (SBIR)
- Primary IC: NIDA
- Due dates: July 25, 2024
- Purpose:
 - This notice of funding opportunity (NOFO) encourages Small Business Technology Transfer (STTR) grant applications from small business concerns (SBCs) proposing research projects directed towards **commercialization** to harness artificial intelligence (AI), including machine learning (ML), tools, and polypharmacology to **identify pharmacotherapeutics with lower toxicity and higher efficacy** to prevent or treat **substance use disorders (SUDs)**.
- Budget:
 - Budgets up to \$400,000 total costs for Phase I and up to \$3,000,000 total costs for Phase II may be requested.
 - Award periods may not exceed 1 year for Phase I and 3 years for Phase II.

Four NIH NOFOs to Support Biomedical Data Repository and Knowledgebase

- **Links:** [PAR-23-236](#), [PAR-23-237](#)
- **Funding Mechanism:** R24, U24, respectively
- **Primary IC:** ODSS, NIGMS with multiple NIH ICs signed on
- **Due dates:**
 - September 25, 2024; January 25, 2025; September 25, 2025; January 25, 2026
- **Purpose:**
 - [PAR-23-236](#): this Notice of Funding Announcement (NOFO) supports the development of **early-stage or new data repositories and knowledgebases** that could be valuable for the biomedical research community.
 - [PAR-23-237](#): this Notice of Funding Opportunity (NOFO) is designed to support **established biomedical data repositories and knowledgebases** as distinct and separate resources that have demonstrated impact and have potential for continued benefit to the community served.
- **Budget:**
 - [PAR-23-236](#): up to \$350K direct cost per year for up to 4 years.
 - [PAR-23-237](#): application budgets are not limited but need to reflect the actual needs of the proposed project, for up to 5 years.

Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science (SCH)

- **Links:** [NSF 23-614](#) [NOT-OD-23-165](#)
- **Funding Mechanism:** NIH R01
- **Primary IC:** NSF and Multiple NIH ICs
- **Due dates:** October 03, 2024; October 3, 2025
- **Purpose:**
 - The purpose of this interagency program solicitation is to support the development of transformative high-risk, high-reward advances in **computer and information science, engineering, mathematics, statistics, behavioral and/or cognitive research** to address pressing **questions in the biomedical and public health** communities.
- **Budget:**
 - \$300K total cost per year for up to 4 years

Notice of Special Interest (NOSI): Administrative Supplements to Support the Development of Digital Twins in Radiation Oncology (DTRO)

- **Link:** [NOT-CA-24-015](#)
- **Funding Mechanism:** Administrative Supplements to existing R00, R01, R21, R35, R37, U01, P01, P30, P50, U19, U24, or U54 awards
- **Primary IC:** NCI & ODSS
- **Pre-request:** must have an active NCI award funded by abovementioned funding mechanisms
- **Due dates:** March 21, 2024
- **Purpose:** The Division of Cancer Treatment and Diagnosis (DCTD) and the Center for Biomedical Informatics and Information Technology (CBIIIT) at the National Cancer Institute (NCI) announce the **Digital Twins Radiation Oncology (DTRO)** administrative supplement opportunity that seeks to support collaborative, multidisciplinary research in radiation oncology in the development of digital twins.
- **Budget:** \$250K total cost for one year.

NIH ODSS Supplement NOSIs

- [NOT-OD-20-073](#), [NOT-OD-21-091](#), [NOT-OD-22-068](#), [NOT-OD-23-073](#): Notice of Special Interest (NOSI): Administrative Supplements to Enhance **Software Tools** for Open Science
- [NOT-OD-21-079](#): Notice of Special Interest (NOSI): Administrative Supplements for **Workforce Development** at the Interface of Information Sciences, Artificial Intelligence and Machine Learning (AI/ML), and Biomedical Sciences
- [NOT-OD-21-094](#), [NOT-OD-22-067](#), [NOT-OD-23-082](#): Notice of Special Interest (NOSI): Administrative Supplements to Support Collaborations to Improve the **AI/ML-Readiness of NIH-Supported Data**
- [NOT-OD-22-065](#): Notice of Special Interest (NOSI): Administrative Supplements for Advancing the **Ethical Development** and Use of AI/ML in Biomedical and Behavioral Sciences
- [NOT-OD-22-069](#), [NOT-OD-23-044](#): Notice of Special Interest (NOSI): Support for existing data repositories to align with **FAIR and TRUST principles** and evaluate usage, utility, and impact
- [NOT-OD-23-070](#): Notice of Special Interest (NOSI): Administrative Supplements to Support the **Exploration of Cloud** in NIH-supported Research
- Subscribe [ODSS Newsletter](#) for future NOFO announcements.

ODSS Common Data Elements (CDE) Workshop

Advancing the Use and Development of Common Data Elements in Research

<https://www.scgcorp.com/AdvancingUseofCDEs24/>

March 6th – 7th, 2024

Hybrid (Virtual and In-person)

Workshop Sessions

I: The Value of Common Data Elements (CDEs)

II: Current NIH Resources for CDEs

IIIA: Overcoming Barriers in CDE Adoption, Mapping, and Use in Community Research

IIIB: Technical Implementation Aspects of Mapping, Transformation, and Harmonization

IIIC: Approaches to Improve Interoperability

IV: Use Cases for Preparing and Applying CDEs for Intelligent Technologies (AI/ML)

Venue (In-Person Attendees)

Ruth Kirschstein Auditorium, Natcher Conference Center (Building 45)

National Institutes of Health (Main Campus)

9000 Rockville Pike Bethesda, MD 20892

Register Here



The image features a large white semi-circle on the left side, set against a dark blue background. The background is decorated with several abstract geometric elements: a dark blue curved band that follows the inner edge of the white semi-circle, a thin light blue diagonal line, and a thicker dark blue diagonal line. The word "Questions?" is centered within the white area in a bold, black, sans-serif font.

Questions?

Office of Data Science Strategy

www.datascience.nih.gov

A modernized, integrated, FAIR biomedical data ecosystem



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