

# Data Science Funding Opportunities at NIH

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*Training, Workforce Initiatives, and Community Engagement (TWICE)*

*NIH Office of Data Science Strategy (ODSS)*

Unlocking the Power of  
**BIG DATA**  
IN HEALTH  
Empowering Scientific and  
Healthcare Communities with  
Data Analytics



**5<sup>TH</sup> NATIONAL BIG DATA  
HEALTH SCIENCE CONFERENCE**  
February 2-3 2024 | Columbia, SC

February 3, 2024

# NIH Strategic Plan for Data Science 2023-2028

## Request for Information (RFI) Deadline: March 15, 2024

Request for Information (RFI): Inviting Comments on the National Institutes of Health (NIH) Strategic Plan for Data Science 2023-2028

**Notice Number:**  
NOT-OD-24-037

### Key Dates

**Release Date:** December 15, 2023

**Response Date:** March 15, 2024

### Related Announcements

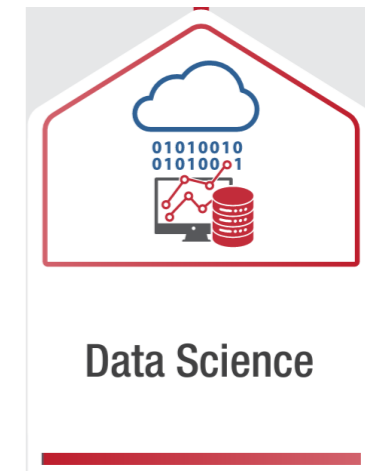
None

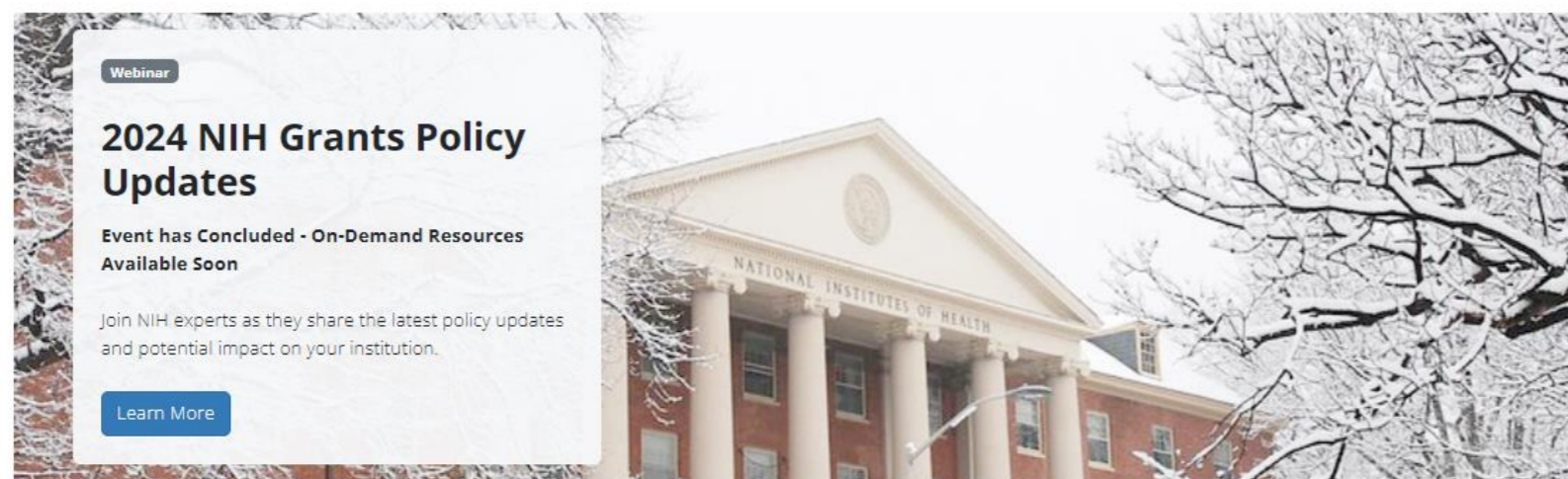
### Issued by

Office of Data Science Strategy (ODSS)

### Purpose

The purpose of this Request for Information (RFI) is to solicit public comments on the updated NIH Strategic Plan for Data Science, 2023-2028. The NIH is publishing this Notice to solicit input on topics under consideration for the strategic plan from its stakeholders, including members of the scientific community, academic institutions, the private sector, health professionals, professional societies, advocacy groups, and patient communities, as well as other interested members of the public.





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grants.nih.gov/funding/searchguideNew/index.html#/?query="data%20science"%20("artificial%20intelligence"%20"big%20data"%20readiness%20software%20training%20bioin...

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Title	NOFO/Notice Number	Issuing Organization	Release Date	Expiration Date	Activity Code
Notice of Special Interest: Advanced <b>Computational</b> Approaches to Elucidate Disease Pathology and Identify Novel Therapeutics for Addiction	NOT-DA-21-004	NIDA	May 17, 2021	Jan 08, 2025	R01
Broadening Opportunities for <b>Computational</b> Genomics and <b>Data Science</b> Education (UE5 Clinical Trial Not Allowed)	RFA-HG-23-002	NHGRI	Aug 29, 2023	Jun 11, 2024	UE5
Investigator Initiated Research in <b>Computational</b> Genomics and <b>Data Science</b> (R01 Clinical Trial Not Allowed)	PAR-21-254	NHGRI	Jul 29, 2021	Sep 08, 2024	R01
Investigator Initiated Research in <b>Computational</b> Genomics and <b>Data Science</b> (R21 Clinical Trial Not Allowed)	PAR-21-255	NHGRI	Jul 29, 2021	Sep 08, 2024	R21
Enhancement and Management of Established Biomedical <b>Data Repositories</b> and Knowledgebases (U24 Clinical Trial Not Allowed)	PAR-23-237	OD	Aug 30, 2023	Jan 26, 2026	U24
Personal Health <b>Informatics</b> for Delivering Actionable Insights to Individuals (R01 Clinical Trial Optional)	PAR-23-245	NLM	Aug 9, 2023	Nov 06, 2026	R01
Exploratory Grant Award to Promote <b>Workforce Diversity</b> in Basic Cancer Research (R21 Clinical Trial Not Allowed)	PAR-24-039	NCI	Nov 1, 2023	Nov 18, 2026	R21
Early-stage Biomedical <b>Data Repositories</b> and Knowledgebases (R24 Clinical Trial Not Allowed)	PAR-23-236	OD	Aug 30, 2023	Jan 26, 2026	R24
<b>Informatics</b> Tools for the Pangenome (U01 Clinical Trial Not Allowed)	RFA-HG-23-026	NHGRI	Jun 20, 2023	Mar 04, 2025	U01
Integrating <b>Machine Learning</b> with <b>Computational</b> Fluid Dynamics Models of Orally Inhaled Drug Products (U01) Clinical Trials Not Allowed	RFA-FD-24-005	FDA	Nov 14, 2023	Apr 01, 2024	U01
Advanced Development of <b>Informatics</b> Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	RFA-CA-24-018	NCI	Dec 14, 2023	Nov 16, 2024	U24

**Organizations**

Issuing Only

All

AHRQ

CDC

FDA

NIH

**Activity Code**

All

332

Admin Supp

C06

D43

D71

DP1

DP2

F30

F31

**Type of Research**

All

Clinical Trials

Not Clinical Trials

**Type of Funding Opportunities**

All Funding Opportunities

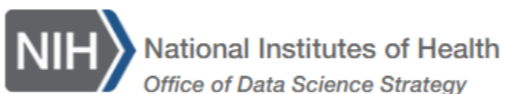
Notice of Special Interest

PA

PAR

PAS

<https://datascience.nih.gov/research-funding>



ODSS Intranet (NIH Staff)   

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To contact the Office of Data Science Strategy (ODSS), please email [datascience@nih.gov](mailto:datascience@nih.gov).

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This page last reviewed on May 25, 2021

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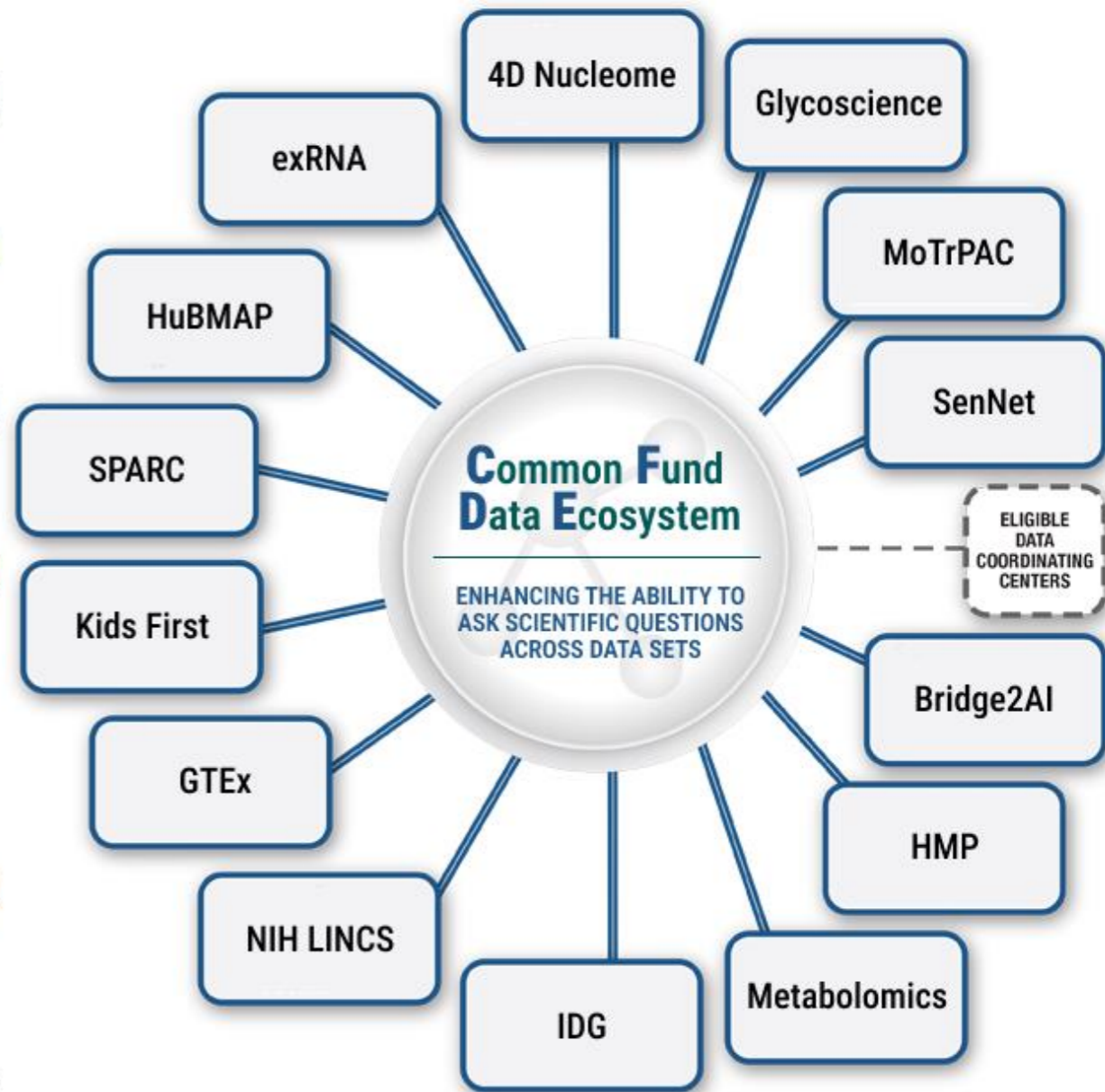
\* Email

By submitting this form, you are consenting to receive informational emails from: National Institutes of Health Office of Data Science Strategy, 6555 ROCK SPRING DRIVE, FERN BG RM 2SE71F-06, BETHESDA, MD, 20817, US, <https://datascience.nih.gov/>. You can revoke your consent to receive emails at any time by using the [SafeUnsubscribe®](#) link, found at the bottom of every email. [Emails are serviced by Constant Contact.](#) [Our Privacy Policy.](#)

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<https://datascience.nih.gov/about/contact>

# NIH Common Fund Data Ecosystem (CFDE)



# National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Strategic Plan Theme: Data science, including artificial intelligence and machine learning, and computational biology

## Examples:

- Improve the use of observational electronic health record data in studies of arthritis and musculoskeletal and skin conditions and their treatments.
- Develop and validate Common Data Elements related to pain in diverse populations and address biological and behavioral mechanisms that are driving pain and health outcomes in arthritis and musculoskeletal and skin diseases.
- Leverage datasets focused on areas such as aging, cardiovascular disease, or diabetes for the discovery of phenotypes for diseases and conditions of interest to NIAMS.
- Use data science approaches to explore the bidirectional interactions between systemic factors and the musculoskeletal system and skin in health, aging, and disease.
- Develop artificial intelligence tools with limited bias that integrate biomedical knowledge across the spectrum of pre-clinical research, clinical research, and clinical practice to increase the efficiency of research and accelerate advances that can benefit patients who have arthritis or a musculoskeletal or skin disease or injury.
- Ensure that artificial intelligence and machine learning approaches used for NIAMS-funded studies adhere to fairness, data diversity, statistical, privacy, reporting, and open access standards.
- Integrate computational biology methods and mechanistic clinical trials to inform the use of patient-specific therapeutics for arthritis or musculoskeletal or skin diseases and conditions across the lifespan.
- Integrate multidimensional human data, from molecular and cellular to population levels, to reduce the burden of arthritis and musculoskeletal and skin diseases and conditions.
- Mine large data sets to identify patients with undiagnosed rare diseases or treatable common diseases of interest to NIAMS to improve access to care.
- Develop clinical support tools that integrate polygenic risk scores with demographic and clinical data to predict the development and progression of arthritis or musculoskeletal or skin diseases.

## Bold Aspiration:

- **The application of data science tools to large data sets will allow researchers to distinguish among phenotypes for heterogeneous forms of arthritis or musculoskeletal or skin diseases.**

# Funding Opportunities for Secondary Data Analysis

- <https://grants.nih.gov/funding/searchguide/index.html#/?query=secondary%20data%20analysis>
- Request for Information (RFI): Increasing the usability of Common Fund data resources by researchers from underrepresented groups
  - <https://grants.nih.gov/grants/guide/notice-files/NOT-RM-24-001.html>



# ODSS Training, Workforce Initiatives, and Community Engagement (TWICE) Team and Contact



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- **Contact:** [ds-workforce@nih.gov](mailto:ds-workforce@nih.gov) ←
- **ODSS webpage:** <https://datascience.nih.gov/>
- **Data science funding opportunities:** <https://datascience.nih.gov/research-funding>
- **Repositories for sharing scientific data:** <https://sharing.nih.gov/data-management-and-sharing-policy/sharing-scientific-data/repositories-for-sharing-scientific-data>
- **Data science job opportunities at NIH (federal):** <https://datascience.nih.gov/jobs>