National Institutes of Health
Office of Data Science Strategy

Data Science Funding Opportunities at NIH

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Training, Workforce Initiatives, and Community Engagement (TWICE)

NIH Office of Data Science Strategy (ODSS)

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

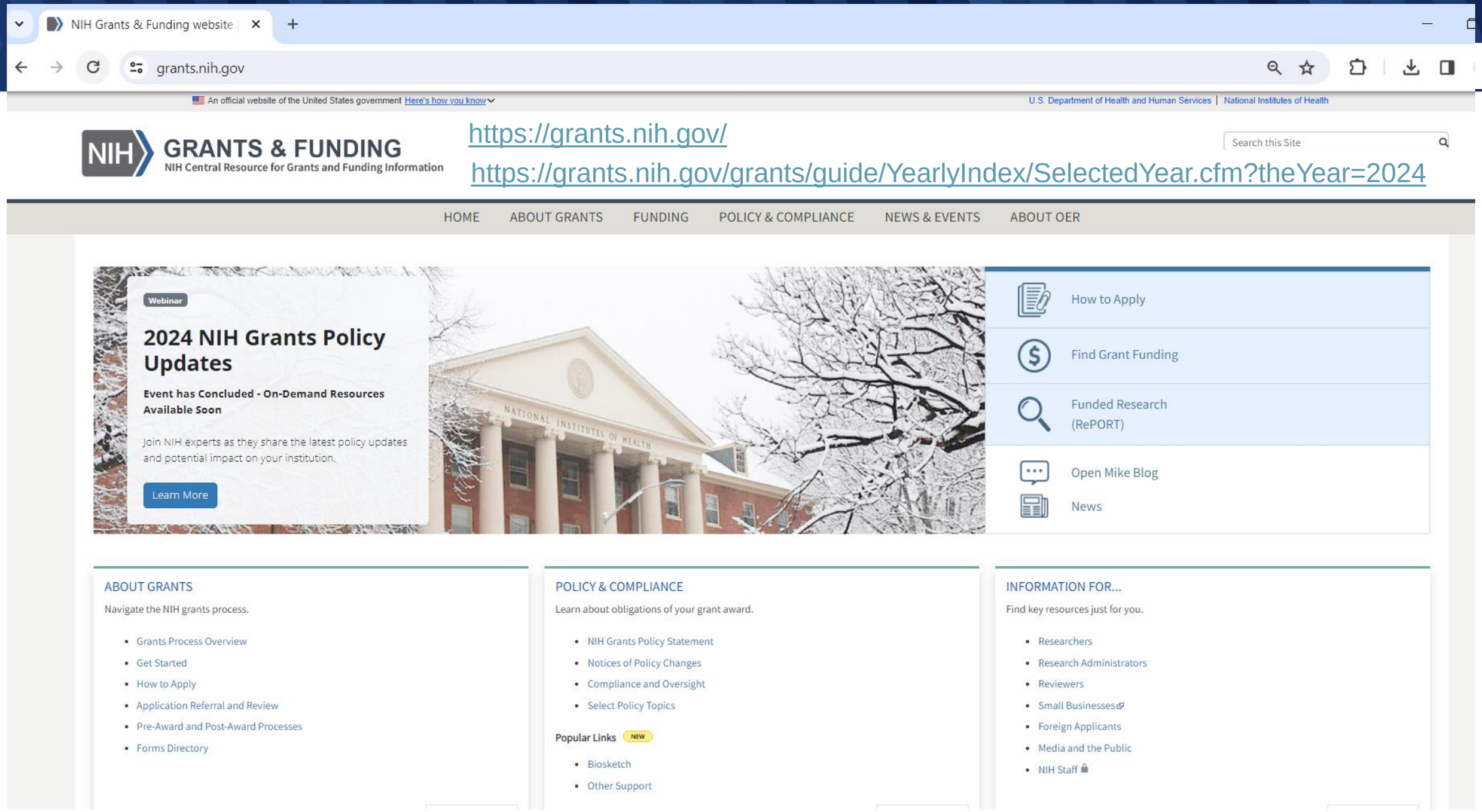
Issued by

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.

https://grants.nih.gov/grants/guide/notice-files/NOT-OD-24-037.html



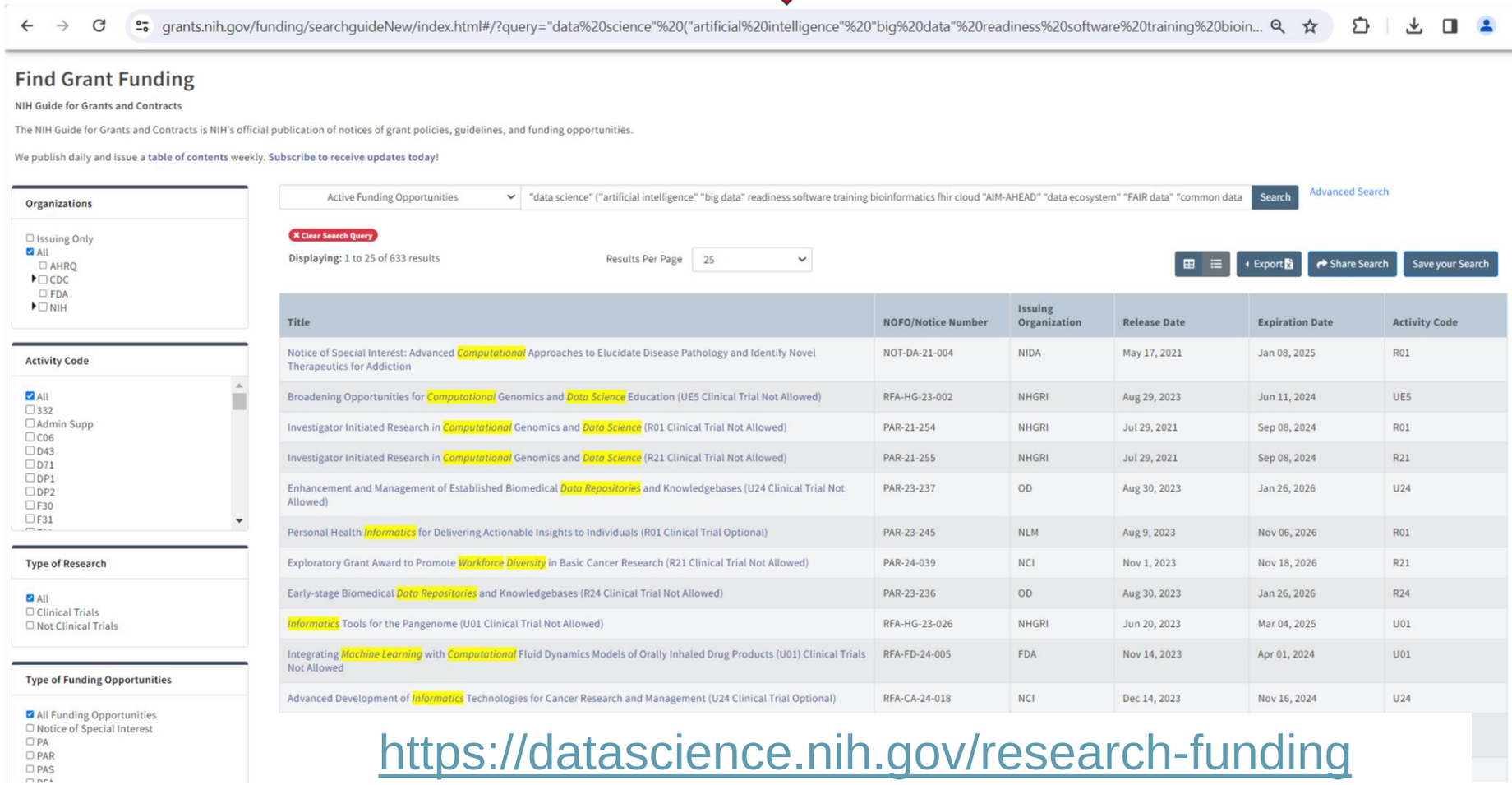
https://grants.nih.gov/

https://grants.nih.gov/grants/guide/YearlyIndex/SelectedYear.cfm?theYear=2024

https://grants.nih.gov/funding/subscribe.htm

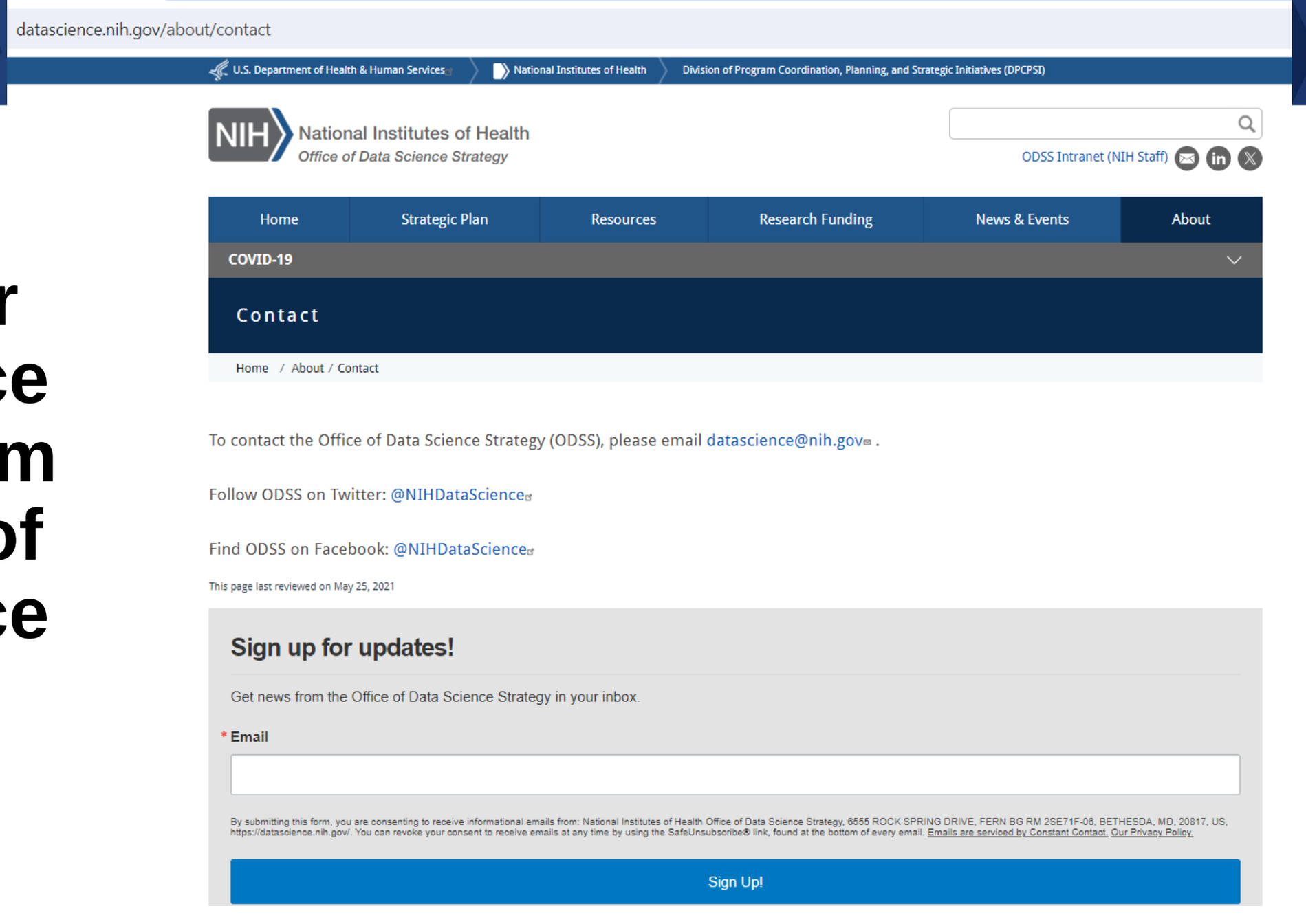
https://grants.nih.gov/funding/index.htm

A Search for Data Science Funding Opportunities



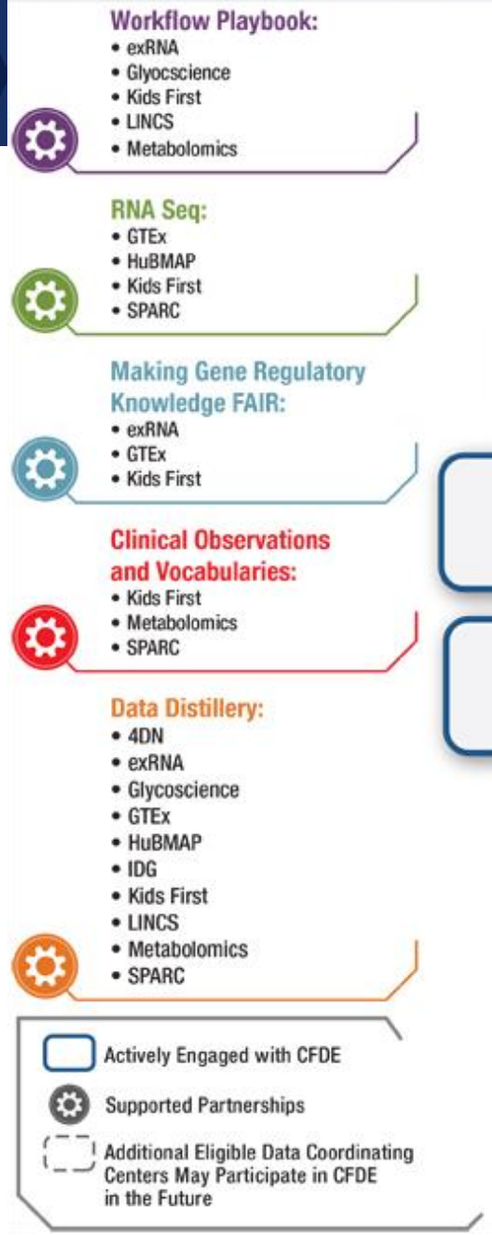
https://datascience.nih.gov/research-funding

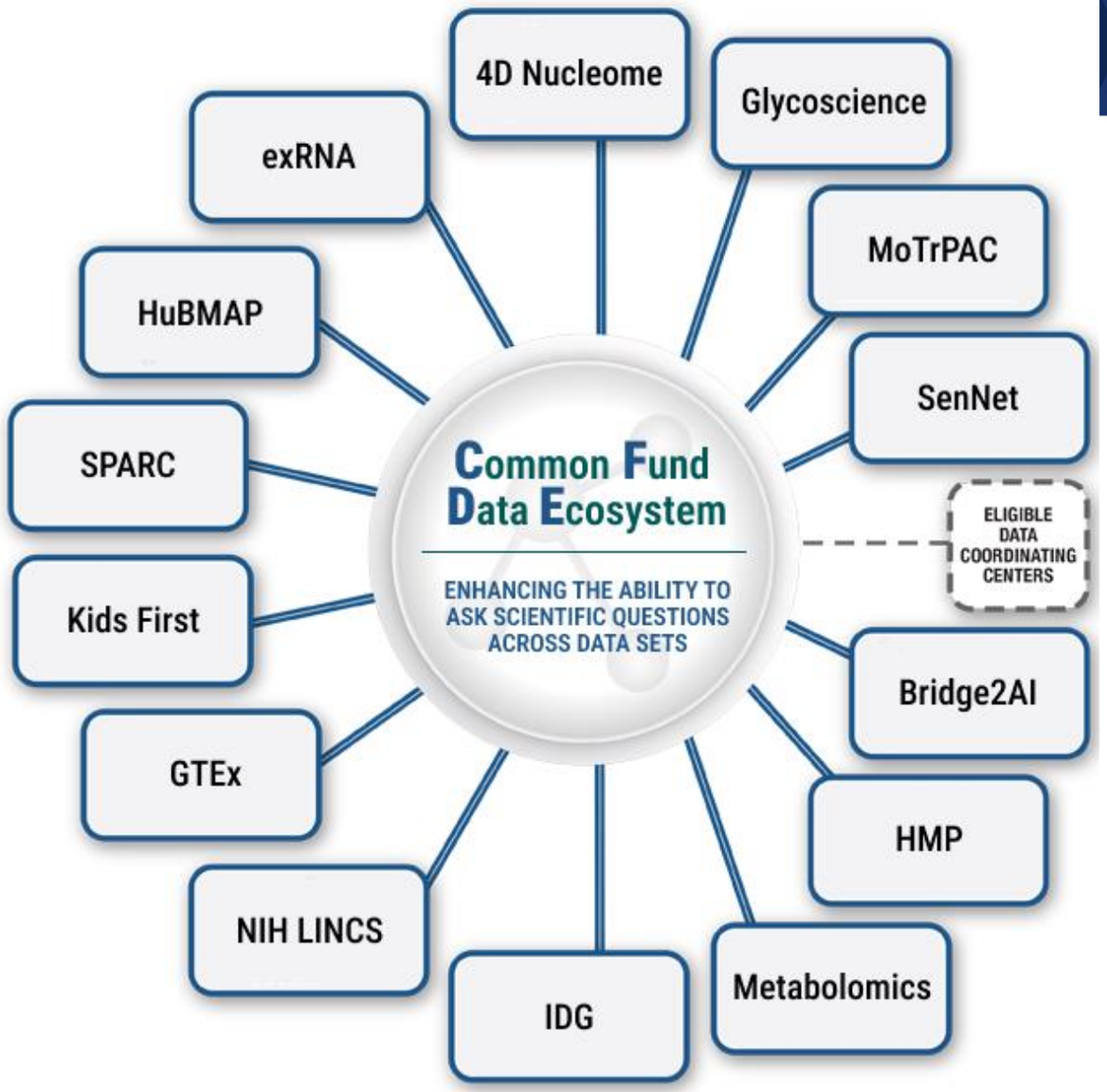
Sign Up for Data Science Updates from NIH Office of Data Science Strategy



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

NIH Common Fund Data Ecosystem (CFDE)





https://commonfund.nih.gov/dataecosystem

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.**

https://grants.nih.gov/grants/guide/notice-files/NOT-AR-23-022.html

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

Dr. Alison Lin
Lead

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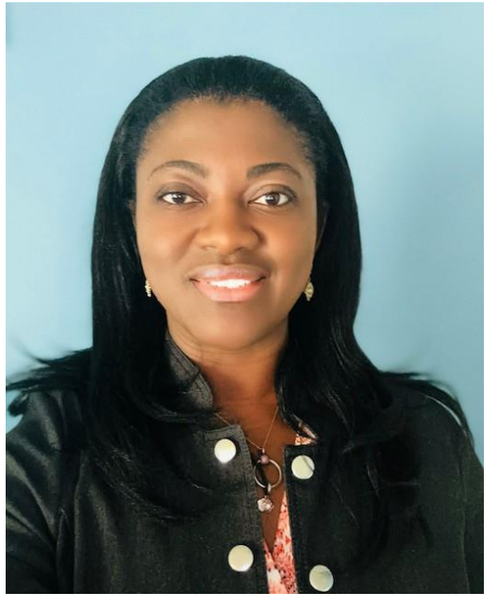
Program Director

Dr. Bryan Kim
Program Director



Evelyn Botchway
Program Analyst

Nicholas Andrade
Training Specialist

- **Contact:** 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