Information Session: Administrative Supplements to Enhance Institutional Data Science Capacity (NOT-OD-23-123)

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Training, Workforce Initiatives and Community Engagement (TWICE)

NIH Office of Data Science Strategy

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National Institutes of Health
Office of Data Science Strategy

Webinar Tips

- Please remain on mute during presentation.
- Submit questions at any time using the chat feature.
- Questions will be answered during the Q&A session at the end of the webinar.
- The slides and recording will be made available after the webinar.

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3

In health research:

- Data science literate
  - ➢ Not intimidated by data science
  - ➢ Can read and understand reported outcomes resulting from data science approaches
  - ➢ Know where to find relevant resources
- Data science savvy – data science literate and
  - ➢ Will actively use data sciences approaches in research projects
  - ➢ Can initiate and/or participate in collaborations with data scientists
- Data scientist
  - ➢ Has skills and expertise in bioinformatics, artificial intelligence, clinical informatics, cloud computing, statistics, computational science, software design and programming, bioinformatics, visualization, machine learning, predictive analytics, supercomputing, modeling and simulation, digital health, data sharing and access, data management, and/or other data science areas
  - ➢ Can communicate what they learn and creatively display the information
  - ➢ Can formulate implications and implement follow up studies

"Alone we can do so little; together we can do so much."

- *Helen Keller*

Diversity Mitigates Health Disparities and Benefits Research Efforts

Improve access to health care for underserved patients

Increase racial/ethnic minority patient choice and satisfaction

Improve quality of education
- Cultural competency
- Improved learning outcomes

Diverse teams out-perform homogenous teams

Diversity expands range of questions

Facilitates translation of findings to diverse communities

Helps to recruit and retain diverse students and scientists

Training, Workforce Initiatives and Community Engagement (TWICE)

ODSS established TWICE to build a stronger and broader data science community for turning discoveries into health

	Within NIH	Extramural Community
Training	Recruit and support diverse data science trainees in the IRP	Support data science trainees from diverse backgrounds
Workforce	Facilitate recruitment and retention of diverse data science talents at NIH	Promote diversity of data science workforce in the biomedical research community
	Develop a pathway for early data scientists to join the NIH	Broaden the reach of data science among established investigators
Community Engagement	Enhance interconnectivity of data scientists of all levels at NIH	Enhance data science capacity, particularly in institutions serving underserved communities
	Provide training tools and resources to engage all communities in growing data science knowledge and skills	

Develop Human Capital

Grow Partnerships

Enhance Infrastructure

Capacity Building
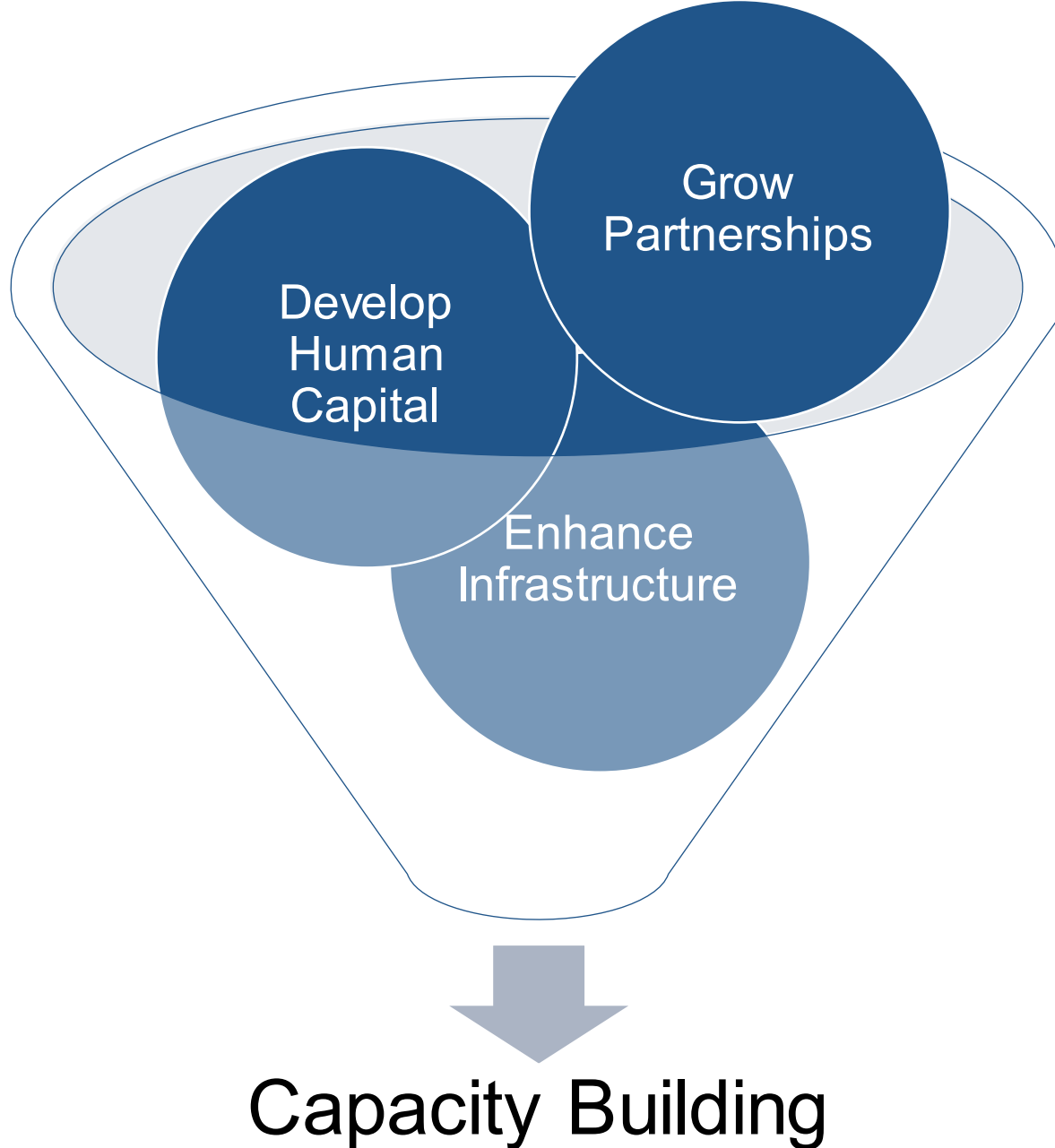
Eligible Parent Awards:

- NIMHD: Research Centers in Minority Institutions (RCMI)

- NIGMS: Institutional Development Award (IDeA)

- NCI: Partnerships to Advance Cancer Health Equity (PACHE)

Data Science Topic Areas

Examples of data science areas include, but are not limited to:

- artificial intelligence;
- predictive analytics;
- machine learning;
- bioinformatics;
- cloud computing;
- computational science;

- software design and programming;
- supercomputing;
- statistics;
- clinical informatics;
- data visualization;

- modeling and simulation;
- data sharing and access;
- data management;
- data compression and standards;
- other data science topics

Applications are strongly encouraged to include activities that enhance institutional awareness, knowledge and communication of:

- data ethics;
- risk management of cybersecurity.

Application Information

Application Content:

- Parent award must be able to receive funds in FY 2023 – not in the final year or on a no-cost extension as of September 1, 2023.

- Proposed supplement project must be within scope of the parent grant.

- Proposed supplement project period must be within the currently approved project period for the parent award and cannot exceed 2 years.

- Each eligible parent award is limited to no more than one supplement request through this NOSI.

- Must be submitted using the following opportunity or its subsequent reissued equivalent:
  - PA-20-272 - Administrative Supplements to Existing NIH Grants and Cooperative Agreements (Parent Admin Supp Clinical Trial Optional)

- Follow instructions in the SF424 (R&R) Application Guide and PA-20-272
  - Include "**NOT-OD-23-123**" (without quotation marks) in the **Agency Routing Identifier field (box 4B)** of the SF424 R&R form

- Research Strategy section (up to 6 pages):
  - Clearly state which of the three **program objectives** are addressed by the proposed supplement project
  - Include plans for **continuity and sustainability** of the activities beyond the period of the supplement support
  - Include plans for **evaluation of the outcomes and impacts** of the supplement

- Budget Justification must include a statement regarding the expenditure plans of currently available unobligated grant funds for the parent award

Programmatic Objective 1

Objective 1: Grow Human Capital with Data Science Competencies

Promote data science knowledge, skills, abilities and behavior

For Example:

- Training courses and/or education events that enhance data-relevant skills and knowledge, engages interest, and builds confidence, and/or promotes access to data science mentors.

- Engagement of experts to support data science activities such as innovative reuse of existing datasets, writing data sharing and management plans, instructional design for data science training, and research design for data science projects and others.

- Short-term mentored internship experiences that develop data science competencies of undergraduate and graduate students.

- Training for members of Institutional Review Board (IRB) on the review of proposals for secondary analyses of existing data from clinical research and clinical services.
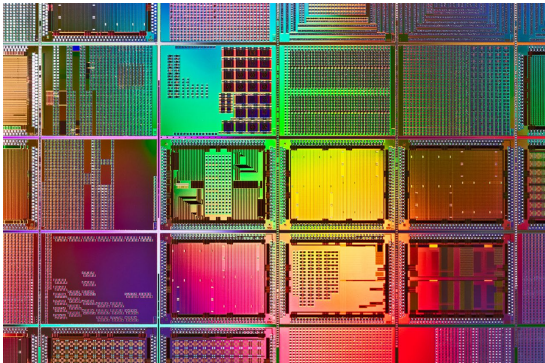
Programmatic Objective 2

Objective 2: Develop or Expand Institutional Infrastructure

Support data science research, training and education

For Example:

- Institutional activities that enhance the researchers' ability to conduct data science-relevant biomedical and health research.

- Activities that enhance researchers' access to controlled and registered datasets.

- Activities that encourage research with computational tools and datasets available in secure workspaces or workbenches of NIH cloud resources, for example, through the ScHARe data platform and other repositories for sharing scientific data.

Programmatic Objective 3

Objective 3: Build Data Science Partnerships

- Within institution;
- With other institutions;
- Across programs;
- With other organizations

For Example:

- Efforts that enhance collaboration between researchers from different disciplines conducting research with shared data science focus area.

- Activities that establish learning communities to help participants such as students, educators, and community partners to develop data science identity, equitable data practices, and sense of belonging to the data science community.

- Development of partnerships with academic and industry partners to provide opportunities for students and exposure to data science career pathways.

- Partnerships with other institutions or organizations that enhance data science knowledge and skills of the researchers and students in the institution.

ICO-Specific Eligibility and Information

NIMHD: RCMI Program

Parent U54 or U24 must:

- Be awarded under RFA-MD-17-003, RFA-MD-17-006, RFA-MD-18-012, RFA-MD-20-006, RFA-MD-20-007, or RFA-MD-22-002 ;
- Be an active NIH award at the time of application;
- Have sufficient time left to complete proposed supplement project.

NIGMS: IDeA Program

- Eligibility limited to:
  - Institutional Development Award (IDeA) Networks for Clinical and Translational Research (IDeA-CTR, U54);
  - Centers of Biomedical Research Excellence (COBRE, P20, P30);
  - IDeA Networks of Biomedical Research Excellence (INBRE, P20) IDeA programs.
- Consistent with the terms and conditions of the parent IDeA award.

NCI: PACHE Program

- Both U54 or P20 PACHE parent awards may apply.
- Only MSI institution(s) of a partnership may apply.
- Supplement may include:
  - Research activities that complement or enhance the partnership goals;
  - Education activities that develop new courses in data sciences or new experiences for students, postdoctoral, or investigators;
  - Outreach activities that focus on, for example, expanding partnerships with underserved communities and developing education programs using culturally appropriate education tools about the importance of data science and its benefits

Budget and Due Date

- Supplement budget requests **cannot exceed $250,000/year in Direct Cost** exclusive of Facilities and Administrative costs on sub-awards.

- Requests may be for **up to two years** of support, with second year support contingent upon satisfactory progress during the first year.

- Budgets may not exceed the total direct costs of the current parent award and must be commensurate with the actual needs of the proposed project.

- An awarded supplement amount, in combination with the parent award amount, may provide support above the established dollar limit for the parent grant award.

Applications Due Dates (by 5 pm Local Time):

FY 2023: June 19, 2023

FY 2024: April 1, 2024

Program Contacts

Read the Notice of Funding Opportunity (NOT-OD-23-123) Carefully and Contact Us

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