

# Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa) Overview

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Pre-Application Webinar  
July 6, 2022



**National Institutes of Health**  
*Office of Strategic Coordination - The Common Fund*

**Goal: Spur new health discoveries and catalyze innovation in healthcare, public health, and health research on the continent through application of data science. By:**

- Catalyzing new collaborations and exploring the state of the field for health data science in Africa
- Advancing health data science research in Africa and supporting new African and global partnerships that spur innovation and enhance impact
- Increasing health data science capacity in Africa
- Exploring Ethical, Legal, and Social Implications (ELSI) impacting health data science from an African perspective
- Facilitating development of a trans-African network of data scientists and coordinating administrative functions for the network

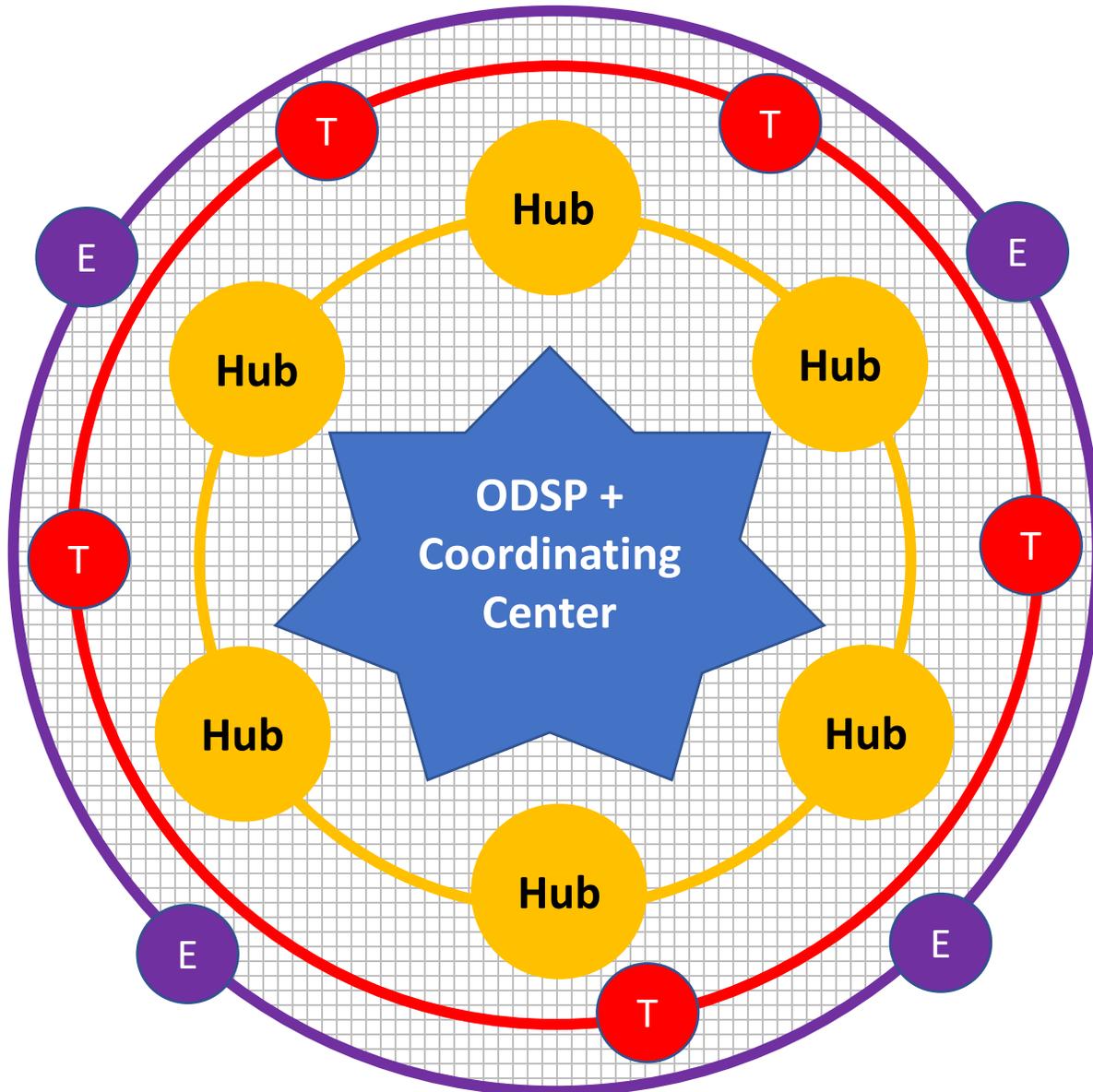
# Additional DS-I Africa Objectives



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- ▶ Consortium Participation
- ▶ Partnerships and Collaborations
- ▶ Data Sharing
- ▶ Community Engagement
- ▶ Data Science Capacity Building

# Current DS-I Africa Consortium



1. Research Hubs focused on key health problems

2. Data Science Training Programs

3. Ethical, Legal and Social Implications of DS-I Research

4. Open Data Science Platform and Coordinating Center

# Current DS-I Africa Consortium



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## September 2021

- ▶ Launched program with \$75 million over 5 years
  - 7 Research Hubs
  - 7 Research Training Programs
  - 4 ELSI Research Projects
  - 1 Open Data Science Platform & Coord. Center
- ▶ Awardees and collaborators from 19 countries in Africa
- ▶ Funding from 12 Institutes, Centers, & Offices
- ▶ <https://commonfund.nih.gov/africadata/fundedresearch>



# DS-I Africa Hub + Training Scientific Areas



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Climate Change  
Environmental Health  
Multimorbidity  
Surgery and Injury  
Health Systems  
Food Systems  
Social Determinants

Cervical Cancer  
Eye Disease  
Mental Health  
Maternal and Child Health  
Orofacial clefts  
Infection Dynamics  
Antimicrobial Resistance

Imaging Dataset Integration Machine Learning Artificial Intelligence Modeling Computational Biology  
Geospatial Analysis Mobile Health Early Warning Systems Diagnostics

# DS-I Africa Awardees



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▶ <https://commonfund.nih.gov/africadata/fundedresearch>

Common Fund » Common Fund Programs » Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa) » Funded Research

Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa)

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**FUNDED RESEARCH** ▶

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## Harnessing Data Science for Health Discovery and Innovation in Africa Funded Research

### Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa) Open Data Science Platform and Coordinating Center (U2C – Clinical Trial Not Allowed) RFA-RM-20-018

PI Name	Institution Name	Title	Collaborating Countries
MULDER, NICOLA (contact) SKELTON, MICHELLE	UNIVERSITY OF CAPE TOWN	<a href="#">eLwazi Open Data Science Platform and Coordinating Center</a>	South Africa, Germany, Mali, Mauritius, Sudan, Uganda, United States of America

### Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa): Ethical, Legal, and Social Implications Research (U01 – Clinical Trial Not Allowed) RFA-RM-20-017

PI Name	Institution Name	Title	Country
MOODLEY, KEYMANTHRI (contact) RENNIE	STELLENBOSCH UNIVERSITY TYGERBERG CAMPUS	<a href="#">Research for Ethical Data Science in Southern Africa (REDSSA)</a>	South Africa, United States of America

- ▶ Each award title links out to NIH RePORTER, which contains the award abstract, details, and contact information
- ▶ Other opportunities to meet or learn about the consortium will be advertised as they develop

# DS-I Africa Coordinating Center Website



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▶ <https://dsi-africa.org/>



Home Consortium About Projects News & Events Contact Us [Log in](#)

A large blue banner with a white background for the text. On the left side of the banner is a stylized map of Africa composed of blue and white squares, with several red dots indicating specific locations. To the right of the map, the text "DS-I Africa" is written in a bold, white, sans-serif font, with the subtitle "Data Science for Health Discovery and Innovation in Africa" in a smaller white font below it. Below the text, the sentence "Harnessing data science technologies to develop solutions to the continent's most pressing public health problems" is written in a white, sans-serif font. At the bottom center of the banner is a white downward-pointing arrow.

**DS-I Africa**  
Data Science for Health Discovery  
and Innovation in Africa

Harnessing data science technologies to develop solutions to  
the continent's most pressing public health problems

# Other Applicant Resources



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## Recordings from August 2020 DS-I Africa Symposium

- Includes breakout clinics on grants management advice, live demo of ASSIST, and advice from grant recipients and peer reviewers:  
<https://commonfund.nih.gov/africadatasymposium/interactive-sessions>

## Application Instructions and Guidance on How to Apply to NIH

- <https://grants.nih.gov/grants/how-to-apply-application-guide.html>
- Make sure to follow instructions in each FOA and the SF424 Application Guide. *Start required registrations early!*

**NIH Peer Review Videos:** <https://public.csr.nih.gov/NewsAndPolicy/PeerReviewVideos>

**Recording and slides from this webinar:** <https://commonfund.nih.gov/africadata/meetings>

Contact NIH Program Officers, Grants Management Specialists, and Application Submission Support!

# Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa): Research Education Program (UE5) RFA-RM-22-022

Laura Povlich  
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<https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-22-022.html>



National Institutes of Health  
*Office of Strategic Coordination - The Common Fund*

# UE5 Program Goals and Requirements



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## Goals

- Support creative educational activities with a primary focus on courses for skills development that complement and/or enhance the training of a workforce to meet the research needs of the DS-I Africa program.

## Requirements

- Hands-on, immersive experiences
- Focus on activities that target educational needs or gaps in the DS-I Africa consortium → must have a letter of support from one or more current DS-I Africa PD/PIs
- Activities must involve participants across multiple institutions.

# UE5 Programmatic Scope



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## *Course Topics*

- Focus on building capacity for the DS-I Africa consortium to spur new health discoveries and catalyze innovation in healthcare, public health, and health research in Africa through the application of data science.
- Technical, scientific, operational and/or professional skill building that is specific to this goal may be proposed through courses, workshops, or other innovative activities.
- Complementary activities that develop broad professional skills that are relevant across the entire research enterprise (e.g., mentorship, leadership, communication, writing, etc.) can be incorporated, but should not be the primary focus of a proposed program.

# UE5 Programmatic Scope



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## *Course Topics*

Example skills focus areas that are considered within scope include, but are not limited to:

- Technical skills using data science approaches and tools
- Data science skills to organize, manage, and process large biomedical datasets
- Problem-solving skills, like human-centered design, as applied to data science innovation
- Social science and/or data science skills to address ethical, legal, and social implications and integrate frameworks into health data science projects
- Team science and/or open science skills for impactful health data science collaborative projects
- Technology transfer skills for translating data science products or outputs beyond the lab
- Community engagement skills to empower communities to become partners in data science research, engage different stakeholders, and facilitate future implementation efforts

# UE5 Programmatic Scope



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## *Course Formats and Delivery Approaches*

- Formats may be based on in-person activities, online courses, or a hybrid of both. The development of creative formats and approaches to achieve and extend the reach of the proposed objectives is highly encouraged.
- For example, challenges, hackathons, and innovations labs are considered within scope. Programs can be multifaceted and incorporate multiple types of activities. Courses should emphasize hands-on immersive experiences.

## *Course Duration*

- Proposed activities can vary in length: from one-day workshops to one-week short courses, summer boot camps, or semester-long immersive experiences. Activities must be completed within a 12-month period and must be offered each year of the award.

# UE5 Programmatic Scope



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## *Participant Considerations*

- Participants in the research education program can be at any career stage, but the target audience and career level should be justified.
- Outreach and recruitment from outside the existing consortium members are also encouraged as appropriate, to strengthen potential trainee recruitment pools for the DS-I Africa Research Training Programs or to enhance the consortium in other ways.

## *Resource Sharing*

- Educational resources developed through this program should be findable, accessible, interoperable, and reusable (FAIR) and awardees will be expected to collaborate with the DS-I Africa Open Data Science Platform and Coordinating Center when considering appropriate avenues for resource sharing.

# Non-Responsive Applications



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The following types of programs and activities will result in the application being deemed non-responsive; such applications will not be reviewed.

- Proposed program does not justify the educational need in the DS-I Africa consortium.
- Proposed program is not supported by one of more current DS-I Africa Principal Investigator.
- Proposed program only involves a single institution.
- Proposed program only offers didactic learning experiences.
- Proposed activities already have funding support from the DS-I Africa program or other sources
- Proposed activities are not completed within a 12-month period.
- Proposed activities are not offered each year that UE5 support is requested.
- Proposed program lacks one or more of the required components in the Research Education Program Plan and is deemed incomplete.

- Applicant organizations **must be African Organizations**
  - African Public/State Controlled Institutions of Higher Education
  - African Private Institutions of Higher Education
  - African Nonprofits Other Than Institutions of Higher Education
- Proposed partnerships with organizations outside the applicant institution encouraged and can include all types of organizations in Africa, the U.S., or other countries, including for-profit and government entities.
- Non-domestic (non-U.S.) components of U.S. Organizations **are not** eligible to apply.

# UE5 Key Dates



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Letter of Intent (optional)	Open Date (Earliest Submission Date)	Applications Due	AIDS Applications Due
August 29, 2022	August 29, 2022	September 28, 2022 <i>by 5:00 PM local time of applicant organization</i>	Not Applicable

Scientific Merit Review	Advisory Council Review	Earliest Start
March 2023	May 2023	September 2023

# UE5 Award Information



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- UE5 - Education Projects - Cooperative Agreements (See Terms and Conditions in the FOA)
- Clinical Trial Not Allowed
- Budgets must not exceed *total costs* of **\$200,000 (U.S.)** per year, which includes direct cost and 8% indirect cost rate
- Project period is up to **three** years
- Up to **five** meritorious applications will be funded

## Research Strategy

The Research Strategy section must be used to upload the **Research Education Program Plan**, which must include the following components described below:

- Proposed Research Education Program
- Program Director/Principal Investigator
- Program Faculty
- Program Participants
- Institutional Environment and Commitment
- Plan for Instruction in the Responsible Conduct of Research
- Evaluation Plan
- Dissemination Plan

# Review and Selection Process



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## 5 Scored Review Criteria

*Each Scored from 1 to 9*

- Significance
- Investigator(s)
- Innovation
- Approach
- Environment



## OVERALL IMPACT

*Scored from 1 (highest) to 9 (lowest)*

**Assessment of the likelihood for the project to strongly advance research education by fulfilling the goal of this UE5 Education Program, in consideration of the review criteria**

# Review and Selection Process



*The Common Fund*

- As part of the scientific peer review, all applications:
  - May undergo a selection process in which only those applications deemed to have the highest scientific and technical merit will be discussed and assigned an overall impact score.
  - Will receive a written critique.
- The following will be considered in making funding decisions:
  - Scientific and technical merit of the proposed project as determined by scientific peer review.
  - Availability of funds.
  - Relevance of the proposed project to program priorities.
  - Relevance of the proposed project to the goals of DS-I Africa.
  - Relevance of proposed project to the priorities of co-funding components.
  - Commitment to compliance with DS-I Africa procedures.
  - Consideration of programmatic, geographic, and institutional distribution.

# Contact Information



The Common Fund

## Program/Scientific

### **Laura Povlich, Ph.D.**

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Email: [laura.povlich@nih.gov](mailto:laura.povlich@nih.gov)

Send FOA related questions to:

[DS-IAfricaUE5@mail.nih.gov](mailto:DS-IAfricaUE5@mail.nih.gov)

## Review and Grants Management

### **Scientific Review Official**

#### **Seetha Bhagavan, Ph.D.**

Center for Scientific Review (CSR)

Telephone: +1-301-237-9838

E-mail: [bhagavas@csr.nih.gov](mailto:bhagavas@csr.nih.gov)

### **Financial/Grants Management Contact**

#### **Vicky Tran**

Fogarty International Center (FIC)

Telephone: +1-301-594-1650

E-mail: [vicky.tran@nih.gov](mailto:vicky.tran@nih.gov)

## Application Submission

### **eRA Commons Help Desk**

Telephone: +1-301-402-7469 or

+1-866-504-9552 (Toll Free)

<http://grants.nih.gov/support/index.html>  
[commons@od.nih.gov](mailto:commons@od.nih.gov)

### **Grants.gov Customer Support**

Telephone: +1-800-518-4726

<https://grants-portal.psc.gov/ContactUs.aspx>  
[support@grants.gov](mailto:support@grants.gov)

### **Grants Info**

Telephone: +1-301-435-0714

[GrantsInfo@nih.gov](mailto:GrantsInfo@nih.gov)

Harnessing Data Science for Health Discovery and  
Innovation in Africa (DS-I Africa):  
Partnership for Innovation Research Projects (U01)  
RFA-RM-22-023

Brad Newsome  
Fogarty International Center  
brad.newsome@nih.gov

<https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-22-023.html>



National Institutes of Health  
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# U01 Program Goals



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- To advance data science and related innovations in Africa through creation of a multisectoral and multidisciplinary ecosystem that can begin to provide local solutions to countries' most immediate biomedical and public health problems through advances in research.
- To support discrete research projects led by African investigators to expand the DS-I Africa Consortium.
- To enhance the career pipeline and retention of health data scientists in Africa by supporting a minimum number of new and early-stage investigators.
- To support innovative health data science research and solutions in Africa with the ability to advance population-relevant, affordable, acceptable, and scalable data science solutions and, in the long-term, demonstrate the ability of these solutions to improve health in Africa.

# U01 Key Research Opportunities



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- Interdisciplinary (biomedical science, computer science, engineering, social and behavioral science, and other fields)
- Focus on critical health research areas to be addressed through data science
- Cross-cutting, disease-specific, or data-specific
- Propose methods to form, maintain, and/or strengthen governmental, academic, and private partnerships to drive sustainable, collaborative data science linked to new technologies
- Utilize data types and sources, such as clinical, public health, genomic, imaging, geospatial, mobile, and environmental data
- Leverage existing African data sets, technology, and infrastructure whenever feasible

# U01 Key Research Examples



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- Multi-omics computational research
- Development and use of shared platforms and leveraging of large health datasets that enable discovery of emergent multi-morbid patterns
- Development and leveraging of novel machine learning/artificial intelligence/computer vision tools for data analytics, computer-assisted detection and diagnosis or treatment
- Development or expansion of informatic tools and statistical methodologies to analyze multi-dimensional environmental exposure data
- Data science technologies and approaches for behavioral health interventions

# U01 Key Research Examples



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- Applicants are encouraged to consider the unique opportunities for African research, including:
  - extensive genomic diversity, migration, and admixture;
  - diseases and health conditions prevalent on the African continent;
  - environmental exposures and health-related conditions; and
  - local health priorities.

**See FOA for many more broad research examples as well as specific areas of interest to NIH Institutes, Centers, and Offices - <https://commonfund.nih.gov/AfricaData/funding>**

- Applicant organizations **must be African Organizations**
  - African Public/State Controlled Institutions of Higher Education
  - African Private Institutions of Higher Education
  - African Nonprofits Other Than Institutions of Higher Education
- Proposed partnerships with organizations outside the applicant institution **are required** and can include all types of organizations in Africa, the U.S., or other countries, including for-profit and government entities.
  - ***At least one organization involved in an application must be new to the DS-I Africa Consortium.***
- Non-domestic (non-U.S.) components of U.S. Organizations **are not** eligible to apply.

# U01 Award Information



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- U01 Research Project – Cooperative Agreement mechanism
- Up to **twelve** meritorious applications will be funded
  - **Half** of funded projects awarded to early-stage investigators
- Project period is up to **three** years
- Budgets must not exceed *total costs* of **\$250,000** per year
- More than one application may be submitted by an institution, as long as each application is scientifically distinct

# Clinical Trial Not Allowed



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- [NIH Definition of a Clinical Trial](#) | A research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include a placebo or other control) to evaluate the effects of those interventions on health-related biomedical or behavior outcomes.
- You are strongly encouraged to review [NIH policy on clinical trials](#) and [case studies for reference](#).
- Four questions determine if your proposed research study is a clinical trial:
  - Does the study involve human participants?
  - Are the participants prospectively assigned to an intervention?
  - Is the study designed to evaluate the effect of the intervention on the participants?
  - Is the effect being evaluated a health-related biomedical or behavioral outcome?

# Early-Stage Investigator Status



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- **Program Goal:** Enhance the Career Pipeline and Retention of health data scientists in Africa
- A Program Director / Principal Investigator (PD/PI) who has completed their terminal research degree or end of post-graduate clinical training, whichever date is later, within the past 10 years and who has not previously competed successfully as PD/PI for a substantial NIH independent research award.
- Relevant for R01-equivalent grant activity codes, including U01
- ESI Status Information: <https://grants.nih.gov/grants/esi-status.pdf>

# U01 Key Dates



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Letter of Intent (optional)	Open Date (Earliest Submission Date)	Applications Due	AIDS Applications Due
August 29, 2022	August 29, 2022	September 28, 2022 <i>by 5:00 PM local time of applicant organization</i>	December 6, 2022 <i>by 5:00 PM local time of applicant organization</i>

Scientific Merit Review	Advisory Council Review	Earliest Start
March 2023	May 2023	September 2023

# Review and Selection Process



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## **1. Overall Impact**

## **2. Scored Review Criteria**

- Significance
- Investigator(s)
- Innovation
- Approach
- Environment

## **3. Scoring System:**

Utilizes a 9-point rating scale  
(1=Exceptional; 9=Poor)

## **4. Additional Review Considerations**

- Protections for human subjects
- Inclusion of women, minorities, and children
- Resource sharing plans
- Budget and period of support

# Review and Selection Process



*The Common Fund*

- As part of the scientific peer review, all applications:
  - May undergo a selection process in which only those applications deemed to have the highest scientific and technical merit will be discussed and assigned an overall impact score.
  - Will receive a written critique.
- The following will be considered in making funding decisions:
  - Scientific and technical merit of the proposed project as determined by scientific peer review.
  - Availability of funds.
  - Early-stage investigator status.
  - Relevance of the proposed project to program priorities.
  - Relevance of the proposed project to the goals of DS-I Africa.
  - Relevance of proposed project to the priorities of co-funding components.
  - Commitment to compliance with DS-I Africa procedures.
  - Consideration of programmatic, geographic, and institutional distribution.

# Contact Information



The Common Fund

## Program/Scientific

### **Brad Newsome, Ph.D.**

Fogarty International Center (FIC)

Telephone: +1-301-480-8389

E-mail: [brad.newsome@nih.gov](mailto:brad.newsome@nih.gov)

Send FOA-related questions to:

[DS-IU01Mailbox@mail.nih.gov](mailto:DS-IU01Mailbox@mail.nih.gov)

## Review and Grants Management

### **Scientific Review Official**

#### **Seetha Bhagavan, Ph.D.**

Center for Scientific Review (CSR)

Telephone: +1-301-237-9838

E-mail: [bhagavas@csr.nih.gov](mailto:bhagavas@csr.nih.gov)

### **Financial/Grants Management Contact**

Vicky Tran

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Telephone: +1-301-594-1650

Email: [vicky.tran@nih.gov](mailto:vicky.tran@nih.gov)

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[support@grants.gov](mailto:support@grants.gov)

### **Grants Info**

Telephone: +1-301-435-0714

[GrantsInfo@nih.gov](mailto:GrantsInfo@nih.gov)

# Acknowledgements



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## Common Fund Working Group

### *Leadership*

Fogarty International Center (FIC)

National Institute of Biomedical Imaging  
and Bioengineering (NIBIB)

National Institute of Mental Health (NIMH)

National Library of Medicine (NLM)

Participating Working Group ICOs:

NCATS, NCI, NEI, NHGRI, NHLBI, NIAID, NICHD, NIDA,  
NIDCD, NIDCR, NIDDK, NIEHS, NIMHD, NINDS,  
OBSSR, ODSS



<https://commonfund.nih.gov/africadata>

<https://dsi-africa.org/>

# Extra Slides Follow Regarding CSR Review



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# Harnessing Data Science for Health Discovery and Innovation in Africa

## ***DS-I Africa Scoreable Review Criteria for***

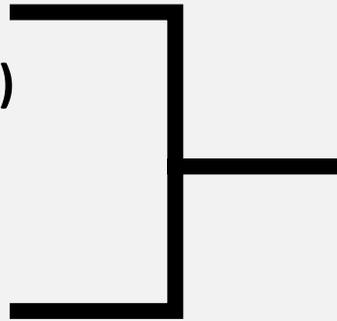
[\(RFA-RM-22-022\)](#) Research Education Program (**UE5** - No Clinical Trial)

[\(RFA-RM-22-023\)](#) Partnership for Innovation Research Projects (**U01** No Clinical Trial)

### 5 Scored Review Criteria

*Each Scored from 1 to 9*

- Significance
- Investigator(s)
- Innovation
- Approach
- Environment



### **OVERALL IMPACT**

*Scored from 1 (highest) to 9 (lowest)*

**Assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved.**

# Implementing Rigor and Transparency in NIH Grant Applications

As per NIH guide notice (NOT-OD-16-011) to enhance the reproducibility of research findings through increased scientific rigor and transparency, reviewers will be evaluating the following review criteria as follows:

## Significance

- Is the scientific premise for the proposed project well described, including consideration of the strengths and weaknesses of published research or preliminary data crucial to the support of the application?

## Approach

- Are the experimental design and methods proposed well described to evaluate whether they will achieve robust and unbiased results.
- Does it explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans? For example, is there strong justification from the scientific literature, preliminary data, or other relevant considerations, for applications proposing to study only one sex. See [NOT-OD-15-102](#) for further consideration of NIH expectations about sex as a biological variable.

## Authentication of Key Biological and/or Chemical Resources

- Are the methods described to ensure the identity and validity of key biological and/or chemical resources used in the proposed studies?

NOT-OD-16-011: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-011.html>

NOT-OD-15-102: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-011.html>

***DS-I Africa FOA-Specific Review Criteria for***  
***(RFA-RM-22-022) Research Education Program (UE5 - No Clinical Trial)***

UE5	FOA-specific review criteria in addition to standard review criteria
Significance	Is there convincing evidence that the program will address a need or gap in the DS-I Africa consortium and advance the goal of the DS-I Africa program to spur new health discoveries and catalyze innovation in healthcare, public health, or health research in Africa through the application of data science?
Investigator	Is there evidence that the PD/PI(s) and faculty collectively have appropriate experience working in research education in Africa?
Innovation	Taking into consideration the nature of the proposed research education program, does the applicant make a strong case for this program effectively reaching an audience in need of the program's offerings? Where appropriate, is the proposed program developing or utilizing innovative approaches and latest best practices to improve the knowledge and/or skills of the intended audience?
Approach	Is the proposed collaborative nature of the Research Education program sufficient for integration with the DS-I Africa consortium? Is the proposed plan for dissemination of the education program sound and likely to provide useful information to the broader scientific community?
Environment	Do the letters of support provide evidence that the education program will benefit the DS-I Africa consortium? Where appropriate, is there evidence of collaboration and buy-in among participating programs, departments, and institutions? Are potential avenues to sustain the proposed activities beyond the period of funding feasible?

***DS-I Africa FOA-Specific Review Criteria for***  
**(RFA-RM-22-023) Partnership for Innovation Research Projects (U01 No Clinical Trial)**

<b>UE5</b>	<b>FOA-specific review criteria in addition to standard U01 review criteria</b>
Significance	If successful, will the project result in knowledge or resources that could be utilized to improve human health and/or move the field of data science forward, especially in the low-resource settings in Africa? If successful, would the project provide data, information, and knowledge to inform the processes of harnessing data science for health discovery and innovation in Africa? If applicable, will the project provide rigorous scientific data that might be used for effective decision-making by stakeholders? Is the proposed project appropriately designed to expand the reach and impact of DS-I Africa?
Investigator	If applicable, do the investigators have the experience and ability to handle different data types and to present an integrated view of these data? Will the partnerships proposed in the application enhance the impact of the planned research?
Innovation	As applicable, does the project propose an innovative solution to a critical barrier to progress in the understanding of how data science and innovation can be leveraged to address critical health priorities in the African country or region of interest?
Approach	Does the project fit within the broader objectives of the DS-I Africa program, including strategies for community engagement and research translation? Are the evaluation plans, milestones and timelines proposed appropriate and adequate for the project? Has the issue of future sustainability been adequately addressed? How contextually appropriate and impactful are the proposed research capacity building and career enhancement activities for researchers across the career spectrum?
Environment	Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

## ***DS-I Africa Additional Review Criteria and Considerations***

***([RFA-RM-22-022](#)) Research Education Program (UE5 - No Clinical Trial)***

***([RFA-RM-22-023](#)) Partnership for Innovation Research Projects (U01 No Clinical Trial)***

### ***Additional Review Criteria***

***(Score-influencing)***

- **Protection of Human Subjects**
- **Inclusion plans** of sex/gender, race/ethnicity, and age of human subjects across the lifespan
- Appropriate use of **Vertebrate Animals**
- Management of **Biohazards**

### ***Additional Review Considerations***

***(do not influence scores)***

- Applications from Foreign Organizations
- Select Agent Research
- Resource sharing plans
- Authentication of Key Biological/ Chemical Resources
- Budget

# FAQ on Resource Sharing Plan

## DSI-Africa UE5 applications

UE5 applications are expected to include a software dissemination plan if support for development, maintenance, or enhancement of software is requested in the application. There is no prescribed single license for software produced. However, the software dissemination plan should address, as appropriate, the following goals.

- Software source code should be freely available to biomedical researchers and educators in the non-profit sector, such as institutions of education, research institutions, and government laboratories. Users should be permitted to modify the code and share their modifications with others.
- The terms of software availability should permit the commercialization of enhanced or customized versions of the software, or incorporation of the software or pieces of it into other software packages.
- To preserve utility to the community, the software should be transferable such that another individual or team can continue development in the event that the original investigators are unwilling or unable to do so.

See <https://grants.nih.gov/policy/sharing.htm>

**Reviewers will comment on whether the following Resource Sharing Plans, or the rationale for not sharing the following types of resources, are reasonable:** 1) [Data Sharing Plan](#); 2) [Sharing Model Organisms](#); and 3) [Genomic Data Sharing Plan](#).

# FAQ on Resource Sharing Plan

## DSI-Africa U01 applications

DS-I Africa Partnership for Innovation Research Projects should propose robust systems for the secure management, integration, and interoperability (as appropriate) of data assets in alignment with the broader DS-I Africa Consortium, with facilitation by the DS-I Africa Open Data Science Platform and Coordinating Center. The Project should establish, coordinate, and monitor processes for data analysis and work closely with collaborators within the project and across the DS-I Africa Consortium to ensure high data quality throughout the entire lifecycle of the data.

For DSI-A U01s, there should be a well thought-out plan for sharing data and resources generated by the DS-I Africa Partnership for Innovation Research Project, which should be aligned with the DS-I Africa Open Data Science Platform. Sharing of pre-existing data should be considered, where possible, for advancing consortium-level activities. Necessary exceptions to wide data sharing are allowable and should be discussed, including the need for controlled or restricted access for privacy, ethical, and intellectual property protections.

See <https://grants.nih.gov/policy/sharing.htm>

**Reviewers will comment on whether the following Resource Sharing Plans, or the rationale for not sharing the following types of resources, are reasonable: 1) [Data Sharing Plan](#); 2) [Sharing Model Organisms](#); and 3) [Genomic Data Sharing Plan](#).**