

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

Concept Clearance: New FOAs within an existing program
DS-I Africa Partnership for Innovation Research Projects
DS-I Africa Research Education Awards

NIH Council of Councils
September 17, 2021

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

OSC (Common Fund)



The Common Fund

Concept Clearance: New FOA within existing Common Fund Program

TITLE: Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa): Partnership for Innovation Research Projects

Objective: Support discrete research projects led by African investigators to expand the DS-I Africa network. Applicants will propose innovative health data science research and solutions in Africa with a new non-academic partner that enhances the potential impact of the research. The awards also aim to enhance the career pipeline and retention of health data scientists in Africa and at least half of the awards will go to new and early-stage investigators (ESI).

Funds Available and Anticipated Number of Awards: \$3 million per year; anticipate at least 12 awards (at least 6 New/ESI)

Award Project Period: 3 years

Council Action: Vote on support of Partnership for Innovation Research Projects

Concept Clearance: New FOA within existing Common Fund Program

TITLE: Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa): Research Education Awards

Objective: Complement and/or enhance the existing long-term training awards in the DS-I Africa Consortium through research education awards that fill a gap and extend the reach of the consortium. Education could focus on data science or related fields (such as team science, innovation and entrepreneurship, ELSI, etc).

Funds Available and Anticipated Number of Awards: \$1 million per year; anticipate at least 5 awards

Award Project Period: 3 years

Council Action: Vote on support of Research Education Awards

DS-I Africa Goals and Sub-initiatives



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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 → DS-I Africa Virtual Symposium (<https://commonfund.nih.gov/africadatasymposium>)
- ❑ Advancing health data science research in Africa and supporting new African and global partnerships that spur innovation and enhance impact. → [RFA-RM-20-015](#) Research Hubs (U54)
- ❑ Increasing health data science capacity in Africa → [RFA-RM-20-016](#) Research Training Program (U2R)
- ❑ Exploring Ethical, Legal, and Social Implications (ELSI) impacting health data science from an African perspective → [RFA-RM-20-017](#) Ethical, Legal, and Social Implications Research (U01)
- ❑ Facilitating development of a trans-African network of data scientists and coordinating administrative functions for the network. → [RFA-RM-20-018](#) Open Data Science Platform and Coordinating Center (U2C)

DS-I Africa Progress



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- Virtual Symposium and Webinar Series held Aug – Oct 2020
 - 2,234 registrants from 50+ disciplines, 36 African countries, networking between academic, public & private sectors
 - 80% of survey participants met at least one potential collaborator
- Significant response to four prior FOAs with applications received in December 2020
- Funding 7 Research Hubs, 7 Research Training Programs, 4 ELSI Research Projects, and 1 Open Data Science Platform and Coordinating Center (FY2021-2025)
 - Awardees and collaborators from 18 countries in Africa



DS-I Africa Awardee and Collaborating Institutions

- Significant enthusiasm for health data science and innovation from African investigators with novel ideas
- Many new and early-stage researchers are working in health data science and there are newly formed collaborations in this space, which have lower success with complex applications
- Need a variety of capacity building mechanisms for a continent-wide data science consortium
 - This point was emphasized by Council of Councils in Sept 2019

Propose 2 New FOAs for FY23-25 funding

Partnership for Innovation Research Projects:

Support discrete research projects led by African investigators to expand the DS-I Africa network. Applicants will propose innovative health data science research and solutions in Africa with a new non-academic partner that enhances the potential impact of the research.

The FOA also aims to enhance the career pipeline and retention of health data scientists in Africa by supporting a minimum number of new and early-stage investigators.

- **Funds Available and Anticipated Number of Awards:** \$3 million per year; anticipate at least 12 awards (at least 6 New/ESI)

Research Education Awards:

Complement and/or enhance the existing long-term training awards in the DS-I Africa Consortium through research education awards that fill a gap and extend the reach of the consortium. Education could focus on data science or related fields (such as team science, innovation and entrepreneurship, ELSI, etc).

- **Funds Available and Anticipated Number of Awards:** \$1 million per year; anticipate at least 5 awards

DS-I Africa Goals - New Sub-initiatives



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, gathering stakeholders, and exploring the state of the field for health data science in Africa → DS-I Africa Virtual Symposium (<https://commonfund.nih.gov/africadatasymposium>)
- ❑ Advancing health data science research in Africa and supporting new African and global partnerships that spur innovation and enhance impact. → [RFA-RM-20-015](#) Research Hubs (U54) + **Partnership for Innovation Research Projects**
- ❑ Increasing health data science capacity in Africa → [RFA-RM-20-016](#) Research Training Program (U2R) + **Partnership for Innovation Research Projects and Research Education Awards**
- ❑ Exploring Ethical, Legal, and Social Implications (ELSI) impacting health data science from an African perspective → [RFA-RM-20-017](#) Ethical, Legal, and Social Implications Research (U01)
- ❑ Facilitating development of a trans-African network of data scientists and coordinating administrative functions for the network. → [RFA-RM-20-018](#) Open Data Science Platform and Coordinating Center (U2C)

Thank you!



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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, NHGRI, NHLBI, NIAID, NICHD, NIDA,
NIDCD, NIDCR, NIDDK, NIEHS, NIMHD, NINDS, OBSSR

