DS-I Africa Project Spotlight:

Leveraging Data Science Applications to Improve Children's Environmental Health in Sub-Saharan Africa (DICE Project)

Have you considered how DS-I Africa is contributing to improving children's environmental health in Africa? Well, in this month's newsflash, we spotlight a game-changing DS-I Africa project that is leveraging data science applications to improve environmental health-directly impacting children's well-being.

Poor environmental conditions such as air pollution, and unsafe water and sanitation have been ranked among the top risk factors for disability-adjusted years (DALYs) in children. The highest number of deaths per capita attributable to environmental exposures has been observed in Sub-Saharan Africa (SSA) with the highest disease burden noted among children. The overall goal of the **Leveraging Data Science Applications to Improve Children's Environmental Health in Sub-Saharan Africa (DICE Project)** is to harness data science applications to establish the spatial variability in the impact of ambient PM2.5 exposure on children's health in SSA and further identify the explanatory and moderating factors. The overall goal of the project would be achieved through the following specific aims: (1) Establish the spatial variability in the impact of ambient PM2.5 exposure on children's health in SSA, and explore the effect modifying role of neighbourhood greenness and nutrition, (2) Estimate ambient PM2.5 exposures at multi-temporal scales by integrating land use regression (LUR) models, high-resolution ground monitoring data, and mobile monitoring data in Uganda and Ghana, and (3) Identify area - (regional, district) and household-level factors that explain the spatial variability in ambient PM2.5 – child health relationship and establish the temporal changes in these exposure risk profiles. The **DICE Project** led by Professor Kofi Amegah, based at the University of Cape Coast in Ghana, seeks to create new knowledge and provide evidence on the potential of data science for addressing children's environmental health problems in SSA in alignment with the DSI-Africa program. The findings of the project should help trigger investment in air pollution control as well as policy action for addressing area and household poverty to help improve child health and survival in SSA.

More details about DICE Project: View Project Page

Upcoming DS-I Africa Events

*new DS-I Africa Activity Calendar

You can now access the DS-I Africa Consortium Activity Calendar here. In this calendar, you will find major cross-consortium activities.

*update DS-I Africa Ideathon

What is the DS-I Africa Ideathon?
The Ideathon is a brainstorming experience for participants to address some of the most pressing challenges of our time by leveraging their skills and interests.

Aim of the Ideathon?
With DS-I Africa focusing on leveraging data science technologies to transform biomedical and behavioural research and develop solutions that would lead to improved health for individuals and populations, the Ideathon aims to allow consortium members and non-consortium members, **especially trainees and early career researchers**, who have innovative ideas to come together and develop their ideas by using design thinking and innovative learning practices to ideate and collaborate on possible solutions.

How to participate?
Sign up here to join a team.

Awards
1st prize - $1500 towards conference travel and registration fee
2nd prize - $1000 towards conference travel and registration fee
3rd prize - $500 towards conference travel and registration fee

*updated DS-I Africa Working Group Sign up

The DS-I Africa consortium currently has four working groups: (1) Training Working Group, (2) Data Governance Working Group, (3). Data Management Working Group, and (4)Partnerships and Outreach Working Group.
Kindly note that except for the Partnerships and Outreach Working, all other working groups are for consortium members only.

Sign up here to join the working groups and other mailing lists.

*new DS-I Africa Webinar/Meeting Recordings

3rd DS-I Africa Consortium Meeting
Experiences with partnerships from IBM Research and DS-I Africa
FAIR Principles: How to make them work for you
Persistent Identifiers
NIH Data sharing policy

*new Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)

Funding Opportunity RFA-CA-24-016 from the NIH Guide for Grants and Contracts. The purpose of this Funding Opportunity Announcement (FOA) is to invite exploratory/developmental research grant applications (R21) for innovative informatics methods and algorithms to improve the acquisition, analysis, visualization, or interpretation of data across the cancer research continuum including cancer biology, cancer treatment and diagnosis, early cancer detection, risk assessment and prevention, cancer control and epidemiology, and/or cancer health disparities. As a component of the NCI's Informatics Technology for Cancer Research (ITCR) Program, the emphasis of this FOA is on supporting the development of novel informatics capabilities that involve a high degree of innovation that have the potential to accelerate or enhance research. To be successful, there must be a clear rationale for how the proposed informatics method or algorithm is novel and how it will benefit the cancer research field. Projects proposing the application of existing methods or algorithms where the novelty resides in the biological or clinical question being pursued are not responsive to this solicitation and will not be reviewed.

Expiration Date: November 16, 2024
More details: View article...

*new Mental Health Data Prize Africa

The African Population and Health Research Center (APHRC) together with our partner, Wellcome, aims to drive a transformative change in areas related to anxiety, depression, and psychosis. This Data Prize initiative aims to attract a critical mass of diverse African participants, who will subsequently be invited to participate in multidisciplinary projects to understand and to develop new solutions that can address mental health conditions such as anxiety, depression, and psychosis and the related role of data or evidence in the process. The project aims to understand what works in preventing, treating, and managing anxiety, depression, and psychosis and to drive a transformative change in the African context in ways prioritized by the people who experience these problems.

The program has recently opened registration for a free capacity-building program on statistical and machine learning courses for mental health researchers in Africa as part of the Mental Health Data Prize Africa.

More details: View article...

*updated Global Infectious Disease Research Administration Development Award for Low-and Middle-Income Country Institutions

Funding Opportunity PAR-23-300 from the NIH Guide for Grants and Contracts. The purpose of this notice of funding opportunity (NOFO) is to invite applications from research institutions in low- and middle-income countries (LMICs) to provide senior administrators from these institutions with advanced training in the management of NIH grants. The goal is to improve oversight of NIAID grant awards and compliance with NIH funding policies and Federal research funding requirements for NIAID-supported foreign institutions in LMICs.

Open Date (Earliest Submission Date): February 13, 2024

More details: View article...

*updated Informatics Tools for the Pangenome (U01 Clinical Trial Not Allowed)

Funding Opportunity RFA-HG-23-026 from the NIH Guide for Grants and Contracts. The National Human Genome Research Institute (NHGRI) will renew the Human Genome Reference Program (HGRP). This Informatics Tools for the Pangenome FOA will provide multiple awards to develop informatics tools that enable uptake and use of the improved pangenome reference. Emphasis will be on tools for common use cases that are relevant to different broad sectors of the genomics community, e.g., clinical, population, and functional genomics. Possible examples include selecting the best subset of linear genomes or paths along the graph for a given set of samples, visualizing complex variation, and annotating regulatory elements and disease associations.

Letter of Intent Due Date(s): October 01, 2023; February 3, 2025
Open Date (Earliest Submission Date): October 01, 2023
Expiration Date: March 04, 2025

More details: View article...

*updated Upcoming Deadlines for Fogarty Funding Opportunities

- Upcoming deadlines for all Fogarty funding opportunities

*updated Upcoming deadlines for funding opportunities in which Fogarty is a funding partner

- See all Fogarty funding collaborations

*updated Wellcome Trust Funding Opportunities

More funding calls here

Job/Fellowship Opportunities

*new General Applications Now Open: ASBCB Omics Codeathon Apr2024

The African Society for Bioinformatics and Computational Biology (ASBCB), with support from the National Institutes of Health Office of Data Science Strategy (ODSS) is pleased to announce a virtual omics-focused codeathon on April 20-28, 2024.

More details: View article...

Training/Workshops

*new OpenHPC 2.x hands-on training: Virtual lab launching 16 Feb 2024

The HPC Ecosystems Project team is pleased to announce the second virtual hands-on training lab for OpenHPC 2.x, scheduled to launch 16 February 2024 and concluding 4 March 2024.

The virtual lab will provide asynchronous instruction on deploying a 3-node OpenHPC 2.x cluster, with the deployment performed on your personal computer using Virtual Box. Upon the conclusion of the training, participants may opt to keep the virtual 3-node cluster on their system to facilitate future learning and training.

All instructions are delivered online and are available for self-paced learning. The entire virtual lab is expected to require approximately 15 to 20 hours of hands-on time to complete.

More details: View article...

*updated Merck KGaA Darmstadt Germany Innovation Cup 2024

From July, 20th – July, 26th 2024, Merck KGaA, Darmstadt, Germany will be hosting the Innovation Cup Summer Camp (http://innovationcup.merckgroup.com, http://innovationcup.emdgroup.com). The Innovation Cup is an initiative for post-graduate students in natural sciences, computer sciences, and business administration to attend a training program near Frankfurt, Germany. All travel, food and accommodation expenses are paid

More details: View article...

*updated Machine learning & AI Webinars

find out here

Request

*new Landscaping Survey - Health Data Science Skills, Data Infrastructure and Data Sharing

Developing skills and expertise in health data science is essential to overcome barriers and inequalities encountered by health research teams in low-resource settings. Health Data Research Global, Fiocruz and icddr,b, in partnership with The Global Health Network, are calling upon your expertise to help identify: a) essential health data science skills; b) current provision, gaps, and requirements for data science capacity strengthening for health research across Asia, Africa, Latin America and the Caribbean; and c) what data infrastructure and sharing frameworks exist in these regions.

Your insights will help shape data science capacity building initiatives to empower health researchers and practitioners and provide insights for funders and policy makers.

The survey can be taken in English, French, Spanish, and Portuguese.

Link survey: [click here](#)
Survey closes: 31 January 2024

Interesting to read
Integrated Health Management System, Archival Data Generation and Research in Ghana

More details: [View article...](#)

Grants Resources
Sample grant applications
- Sample exemplary grants https://www.niaid.nih.gov/grants-contracts/sample-applications
- Sample plans and forms https://www.niaid.nih.gov/grants-contracts/sample-applications#more
- Sample ELSI grants: https://www.genome.gov/27565190/elsi-sample-applications-and-summary-statements/

Web-based resources and tutorials:
- H3Africa web page: NIH Resources for Applicants and Grantees: https://h3africa.org/index.php/resource/funding/nih-funding-2/#1528183256311-ba3b0aa7-9874
- NIH All About Grants: https://grants.nih.gov/grants/about_grants.htm
- Information For Foreign Grants: https://grants.nih.gov/grants/foreign/index.htm
- NIH Grant Writing 101 (01/13 videocast): https://videocast.nih.gov/Summary.asp?File=17759&bhcp=1
- NIH grant review videos https://public.csr.nih.gov/NewsAndPolicy/PeerReviewVideos
- Glossary of NIH terms https://grants.nih.gov/grants/glossary.htm
- NIH acronym list https://grants.nih.gov/grants/acronym_list.htm
- Toolkit: How to write a fundable research proposal: https://globalhealthtrials.tghn.org/toolkits/research-proposal-writing/

NIH Informational Listserves:
- NIH Extramural Nexus: http://nexus.od.nih.gov/all/subscribe/
- NIH Guide for Grants and Contracts: http://grants.nih.gov/grants/guide/listserv.htm
- Fogarty International Center Funding News for global health researchers: http://www.fic.nih.gov/News/Pages/subscribe.aspx

Want to know more about DS-I Africa?

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