



## DS-I Africa Project Spotlight:

### **BCX-Africa: Utilizing data science to evaluate the applicability of blood cell traits polygenic risk scores for disease prediction in Africa**

Are you aware of the innovative ways [DS-I Africa](#) is utilizing data science (DS) for predictive health analytics in Africa? This month's newsflash highlights an exciting DS-I Africa initiative utilizing data science to evaluate the applicability of blood cell traits polygenic risk scores for disease prediction in Africa.

Circulating blood cell traits are critical intermediate clinical phenotypes for a range of disease outcomes including cardiovascular, oncologic, hematologic, immunologic, and infectious disease. Genetic factors play an important role in determining these traits. However, hundreds of genetic loci have been identified using conventional genome-wide association study (GWAS) approach in European and East Asian-ancestry populations. In view of the genetic diversity of Africans from other ancestries, and their low representation of 1.1% in global GWAS, more studies are required to unravel population-specific variants that have been noted to exist in blood cell traits. Given the central importance of Africa to human origins and disease susceptibility, there is a clear scientific and public health need to develop large-scale efforts examining blood cell traits susceptibility in populations of African descent, which might yield insights that will benefit other ethnicities regarding disease etiology and potential therapeutic strategies.

The overall goal of the [BCX-Africa Project](#) is to aggregate, manage, store, and analyse the largest genetic data of blood cell traits in continental Africa for novel gene discovery and genetic risk prediction. The [BCX-Africa Project](#) led by Prof. Segun Fatumo seeks to test for association between genetic variants and each blood cell trait in a meta-analysis GWAS and refine genetic association signals at new and existing blood cell traits association loci.

**More details about BCX-Africa Project:** [View Project Page](#)

## Upcoming DS-I Africa Events

### **\*new** AI for Healthcare Workshop @ IndabaX

DS-I Africa is co-hosting a workshop on AI for Healthcare workshop at the Deep Learning IndabaX conference on Friday, July 12, 2024. To participate, register for the IndabaX conference. Registration is free for students.

Registration: <https://indabax.co.za>

### **\*updated** 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.

### **\*updated** eLwazi-ODSP Data Jamboree

Date: 26-30 August 2024

### **\*updated** 4<sup>th</sup> DS-I Africa Consortium Meeting

Registration for the 4<sup>th</sup> DS-I Africa Consortium Meeting is open and interested members can register.

#### Meeting Overview (subject to change):

Saturday - Sunday	16th - 17th November	Data-thon/ Pre-Meeting Workshops
Monday	18th November	Pre- Meeting Workshops/ Working Groups
Tuesday	19th November	Working Groups / Opening
Wednesday	20th November	Plenary Sessions/ Working Groups
Thursday	21 November	Plenary Sessions/Closing/Departure
Friday	22 November	Closed Ad hoc Project Meetings - Pre-Arranged

Registration: <https://redcap.h3abionet.org/redcap/surveys/?s=JWTHRPHAJX9KNFW4>

More details: [here](#)

### **\*new** Data Science for Health in Africa Virtual Networking Exchange

The DS-I Africa Coordinating Center and NIH staff are organizing a Virtual Networking Exchange event that will allow DS-I Africa projects and other data science and health organizations in Africa to:

- share information about their work
- network with each other; and
- identify potential partners.

The July 2024 Exchange will feature non-academic organizations outside the DS-I Africa consortium

Date: 31 July 2024 @ 2 pm CAT

### **\*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

[4<sup>th</sup> virtual networking exchange](#)

[Engaging policy makers in health research](#)

[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](#)

## Funding Opportunities

### **\*new** Call for Proposals: WHO project on ethical climate and health research

WHO project on ethical climate and health research: <https://www.who.int/news-room/articles-detail/call-for-proposals--who-project-on-ethical-climate-and-health-research>

**Deadline:** 17 June 2024

### **\*updated** Funding Opportunity to support the development of Point-of-Care Technologies in Nutrition, Infection, and Cancer for Global Health

Through this opportunity, PORTENT will provide funding to teams developing point of care diagnostic technologies based on our criteria (described in section 1.3) and those who need support for clinical validation, commercialization or regulatory expertise, manufacturing, training, or technology development skills to bring their product to market. Specifically, we aim to accelerate technologies that

- Are beyond the proof-of-concept stage and would benefit from clinical validation.
- Have been validated or even commercialized domestically but want to expand reach and have impact internationally.
- Have been developed/incubated by our international partners and show promise at addressing a market need locally or in the US.

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

### **\*updated** NIH Common Fund Venture Program Oculomics Initiative Research Opportunity Announcement

We are happy to announce that the new NIH Common Fund Venture Program Oculomics initiative is underway!

The [Common Fund Venture Program](#) is a new area of Common Fund support that provides a framework for development of short-term Common Fund initiatives that embrace scientific risk and

are responsive to the shared priorities of NIH Institutes, Centers, and the Office of the Director (ICOs). The Common Fund Development and Application of Imaging Technologies for Oculomics ([Oculomics](#)) Venture Initiative aims to support novel, noninvasive ocular (eye) imaging technologies, machine learning algorithms, and other tools to identify highly sensitive and specific biomarkers for diseases that affect the entire body.

The Oculomics initiative released a [Research Opportunity Announcement](#) to invite applications for development, application, and initial translation of new imaging technologies and machine learning algorithms for the detection and identification of novel systemic disease biomarkers. Award applicants are strongly encouraged to form multidisciplinary teams that consist of academic/industry experts relevant to the research plan.

**Join the informational webinar** on April 4, 2024 at 12PM ET

**Registration:** [https://bit.ly/OculomicsROA\\_Webinar](https://bit.ly/OculomicsROA_Webinar)

**Letters of Intent (LOI) due date:** April 16, 2024

**Applications due date:** May 27, 2024, by 5:00 PM local time of applicant organization

## **\*updated** Centers for Research in Emerging Infectious Diseases (CREID) Network (U01 Clinical Trial Not Allowed)

Funding Opportunity RFA-AI-24-006 from the NIH Guide for Grants and Contracts. The purpose of this notice of funding opportunity (NOFO) is to invite applications for Research Centers (RC) to support the Centers for Research in Emerging Infectious Diseases (CREID) Network. The CREID network serves to expand knowledge on re-emerging and emerging infectious diseases (re/EIDs) around the globe where outbreaks are most likely to occur. Multi- and inter-disciplinary teams of domestic and international investigators will conduct innovative, collaborative One Health (approach that recognizes the health of humans is interconnected with that of animal health and the shared environment) based research projects and will mount a rapid and effective research response to outbreaks through coordination, collaboration, and cooperation across the CREID Network.

**Expiration Date: June 22, 2024**

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

## **\*updated** 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...](#)

## **\*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** DS-I Africa ECR Travel Fellowship Call open 4th DS-I Africa Consortium Meeting

DS-I Africa ECR's may apply for the DS-I Africa Travel Fellowship using the DS-I Africa Travel Fellowship form [here](#). Only applications submitted via the REDCap webform by the closing date will be accepted.

**Registration:** <https://redcap.h3abionet.org/redcap/surveys/?s=TXX4ACEDMXW3FECK>

**Closing date:** [May 2, 2024](#)

## Training/Workshops

### **\*new** Human genome repeat expansions analysis virtual workshop

DS-I/H3Africa GAWG repeat expansions project will run the first iteration of Human Genome Expansions Analysis workshop. This workshop aims to provide participants with basic knowledge of Tandem Repeat WG analytical tools. The workshop will cover the following content: A brief review of NGS and its technologies, genotyping, genetic variation and its types, resources, and databases for NGS, an overview of Tandem Repeats (TR), Short Tandem Repeats (STR) Analysis and Hackathon.

The workshop is designed to be helpful for individuals who are involved in human genome analysis. The content of the workshop is multidisciplinary. Therefore, the participants should have one of the following backgrounds: bioinformatics (preferable for those with a background in Computer Science and Engineering), Computer Science, Mathematics, and Statistics (a strong computing background is expected), or Engineering (preferably those from Electronic and Information Engineering (EIE)).

**Registration:** <https://bit.ly/dsi-africa-workshop>

## **\*new** WACE-DSRE-Mali Datathon Workshop

The West Africa Center of Excellence for Data Science Research Education (1UE5TW012526- 01) is a program funded by the National Institutes of Health (NIH) to build interdisciplinary teams across multiple African institutions capable of using innovative quantitative and analytical approaches to generate and apply new knowledge from large or complex sets of data. It aims to strengthen the data science research capacity through skills development in computationally intensive research areas that cover faculty and senior researchers at African institutions. On behalf of the partners, the African Center of Excellence in Bioinformatics and Data Intensive Science (ACE-B) is delighted to announce an opening of applications for a two-week Datathon workshop.

**Registration:** <https://docs.google.com/forms/d/e/1FAIpQLSdWoUxijZLpLsFnLx7qmM6c4LtwUF87Z-loTiHK1MRxAh-NKA/viewform>

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

## **\*new** Data Science for Africa: Short course 3 in health data science methods

The application for the 3rd health data science methods course, Deep Learning is now open. Please find the link in the attached advert.

Course	Course Dates	Application Due Date
Deep Learning and Database Systems	17 <sup>th</sup> – 21 <sup>st</sup> June 2024 (virtual) 24 <sup>th</sup> -28 <sup>th</sup> June 2024 (in-person, South Africa)	Friday, 17 <sup>th</sup> May 2024 (17h00 SAST)
Climate Change, Food Systems, and Planetary Health	22 <sup>nd</sup> July – 26 <sup>th</sup> July 2024 (virtual) 29 <sup>th</sup> July – 2 <sup>nd</sup> August 2024 (in-person, South Africa)	Friday, 14 <sup>th</sup> June 2024 (17h00 SAST)
Health Systems Strengthening	19 <sup>th</sup> August – 23 <sup>rd</sup> August 2024 (virtual) 26 <sup>th</sup> – 30 <sup>th</sup> August 2024 (in-person, South Africa)	Friday, 12 <sup>th</sup> July 2024 (17h00 SAST)

**Registration information:** [here](#)

For further information and questions, please e-mail Mr Themba Manqele at the Centre for Rural Health ([Manqelet@ukzn.ac.za](mailto:Manqelet@ukzn.ac.za)).

## **\*new** DS-I Africa site for UW Project Management in Global Health

The DS-I Africa Coordinating Center is pleased to announce that DS-I Africa has been selected to host a classroom for the online course [Project Management in Global Health](#) presented by the Department of Global Health eLearning Program at the University of Washington.

**Start date:** The course starts on 24 Jun 2024 and ends on 1 Sep 2024.

**IMPORTANT!** Enrolment is voluntary. Our site can accommodate a max. of 50 participants so provided University of Washington's outlined course eligibility criteria are met, we will accept participants on a first-come and first-to-pay basis. The application closing date is 14 May 2024 Pacific Time no late applications accepted

**Course fee**

Only USD 18 per person. Payment is due 3 Jun 2024.

The site cost is USD 1750 for a max. 50 participants. Fees are subsidised by DS-I Africa/H3Africa Coordinating Centres and participant fees will be used to cover certificate courier costs. This fee is minimal - should you choose to enroll as an independent participant (not associated with a site) this course fee will start at USD 199.

Fees not due by application, so please enrol by deadline 14 May should you have interest to participate.

Registration: <https://redcap.h3abionet.org/redcap/surveys/?s=PA94MKJ34HDMN4RK>

## **\*updated** Grant Writing Workshops for Researchers in West Africa

NIAID and the Government of Ghana are collaborating to convene a series of grant writing workshops for researchers in West Africa. The workshops aim to teach West African investigators best practices for writing and submitting grant proposals to the National Institutes of Health (NIH).

Phase I of the workshop will consist of three virtual training sessions in May 2024 which are open to everyone. Individuals who have attended Phase I are then eligible to apply to participate in Phase II and III, which include additional virtual trainings (Phase II) and a four-day, in-person workshop in Accra, Ghana in August 2024 (Phase III).

Registration: <https://insights.crdfglobal.org/wafricagrantwriting>

## **\*updated** Webinar series on how to plan for & write an NIH grant application

The National Institute of Allergy and Infectious Diseases (NIAID) is hosting a virtual grant writing webinar series entitled, "Debuting Your Research Career: How to Plan for and Write Your First (or Next) NIH Grant Application."

Registration information: [here](#)

Dates: February 22–July 18, 2024

More details: [here](#)

## **\*updated** Machine learning & AI Webinars

[find out here](#)

### **Interesting to read**

## **NIAID/NIH Releases 2024 Strategic Plan for Tuberculosis Research**

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](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](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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Subscribe to our monthly newsflash [here](#)

Contact the coordinating center at [ds-i-africa.admin@uct.ac.za](mailto:ds-i-africa.admin@uct.ac.za)