



DS-I Africa Project Spotlight:

Automated Mobile Microscopy for Malaria Diagnosis and Surveillance in Uganda (DS-I Malaria)

Are you aware of the innovative ways DS-I Africa is utilizing machine learning (ML) and deep learning (DL) techniques together with smartphones for malaria diagnosis and surveillance? This month's newsflash highlights an exciting DS-I Africa initiative deploying automated mobile microscopy to revolutionize malaria diagnosis and surveillance.

Malaria stands as a predominant health challenge in Sub-Saharan Africa. A contributing factor to the persisting prevalence of malaria is the poor diagnosis at the laboratories. Such shortcomings frequently result in misdiagnosed cases and contribute to the growing issue of drug resistance. Many developing countries are faced with a lack of critical mass of lab technicians to diagnose the disease through a gold standard mechanism of microscopy and this has worsened the already dire situation in some of these countries. World over the trending technologies are now based on machine learning and deep learning techniques. These can be leveraged with the combination of smartphones to improve disease diagnosis. However, most of the previous work on automation for microscopy diagnosis has been carried out adhocly in the lab environment and no study seems to give a practical field deployable solution.

The overall goal of the [DS-I Malaria Project](#) is to develop a rapid, low-cost, accurate, and simple in-field screening system for microscopy challenges like malaria. The [DS-I Malaria Project](#) led by Dr. Rose Nakasi seeks to test and validate developed image analysis models for real-time field-based diagnostics and surveillance of malaria.

More details about DS-I Malaria Project: [View Project Page](#)

Upcoming DS-I Africa Events

*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 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 April 2024 Exchange will feature non-academic organizations outside the DS-I Africa consortium

Registration: <https://redcap.h3abionet.org/redcap/surveys/?s=77MKE9P4DLRFDAE3>

Date: 24 April 2024 @ 2 pm CAT

More details: [here](#)

*new eLwazi-ODSP Data Jamboree

Date: August 2024

*new 4th DS-I Africa Consortium Meeting

Registration for the 4th 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

More details: [here](#)

*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

[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** 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...](#)

***new** 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

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

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

***new 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...](#)

***new Pre-Application Webinar for PAR-22-153: Infrastructure Development Training Programs for Critical HIV Research at Low- and Middle-Income**

The Fogarty International Center (FIC) will hold two free pre-application interactive Q&A webinars for the FIC Infrastructure Development Training Programs (G11) funding opportunity (see [NOT-TW-24-003](#)). **The next submission deadline is August 22, 2024.** The FIC Program Officer will discuss the G11 funding opportunity at both webinars and will provide a broad overview of the program goals and details about the application requirements. There will be time set aside to answer questions from the attendees and potential applicants. All potential applicants (new and those considering resubmissions) are encouraged to attend the webinars. Participation in the webinar meeting, although encouraged, is optional and is not required for the submission of an application in response to the NOFO. Potential applicants are encouraged to submit their questions ahead of the meeting at FICHIVPrograms@mail.nih.gov.

Webinar information: Please Register for the FIC G11 Program Pre-Application Webinar on

1. April 22, 2024, at 8:30 - 10:00 AM EST at https://nih.zoomgov.com/meeting/register/vJltc--trDsoHhkKxbKmCBa6H_LGbA7fM8A.
2. May 22, 2024, at 2:00 - 3:30 PM EST at https://nih.zoomgov.com/meeting/register/vJltceurgD8oGZBbr_KupCivYJ4vqPWYTcQ.

After registering, you will receive a confirmation email containing information about joining the webinar.

***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** 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** Data Science for Africa: Short course 2 in health data science methods

The application for the 2nd health data science methods course, Machine Learning is now open. Please find the link in the attached advert.

Course	Course Dates	Application Due Date
Machine Learning I and II	06 th – 10 th May 2024 (virtual) 13 th – 17 th May 2024 (in-person, South Africa)	Friday, 12 th April 2024 (17h00 SAST)
Deep Learning and Database Systems	17 th – 21 st June 2024 (virtual) 24 th -28 th June 2024 (in-person, South Africa)	Friday, 10 th May 2024 (17h00 SAST)
Climate Change, Food Systems, and Planetary Health	22 nd July – 26 th July 2024 (virtual) 29 th July – 2 nd August 2024 (in-person, South Africa)	Friday, 7 th June 2024 (17h00 SAST)
Health Systems Strengthening	19 th August – 23 rd August 2024 (virtual) 26 th – 30 th August 2024 (in-person, South Africa)	Friday, 12 th 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).

***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
- 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?

Check out our [website](#), [YouTube](#) and [twitter page](#)

Subscribe to our monthly newsflash [here](#)

Contact the coordinating center at ds-i-africa.admin@uct.ac.za