CALL FOR POST-DOCTORAL FELLOWSHIPS IN BIOSTATISTICS FOR THE 2024 ACADEMIC YEAR
DELTAS AFRICA SUB-SAHARAN AFRICAN CONSORTIUM FOR ADVANCED BIOSTATISTICS (SSACAB) II PROGRAMME

THE CALL WILL REMAIN OPEN UNTIL ALL SEVEN POSITIONS ARE FILLED

DESCRIPTION:

The Sub-Saharan African Consortium for Advanced Biostatistics (SSACAB) is a consortium of six African and two northern partner institutions, and nine collaborating institutions with the University of the Witwatersrand, Johannesburg as the Lead Institution. SSACAB II has received funding through the Developing Excellence in Leadership, Training, and Science in Africa (DELTAS Africa) program. DELTAS Africa is an initiative of the Science for Africa Foundation (SFA) with funding support of Wellcome and the United Kingdom's Foreign, Commonwealth & Development Office (FCDO). The funding aims to develop and improve biostatistical skills among researchers in order to create biostatistical research nodes of excellence and a network to nurture researchers with advanced skills and expertise.

The funding will cover fellows undertaking a Post-Doctoral program in Biostatistics at participating training institutions for two years. The consortium is currently inviting applications for full-time Post-Doctoral fellowships. This Post-Doctoral fellowship programme focuses on quantitative research in health-related fields with the aim of building a career in Biostatistics, which is a growing field in low and middle-income countries due to increased biomedical research.

ELIGIBILITY:

The Post-Doctoral fellowships are open to candidates with a strong background in Statistics, Mathematics, Demography, and other quantitative fields. Former DELTAS Africa SSACAB I fellows who have recently been awarded or have completed a PhD in Biostatistics degree are also encouraged to apply.

The scholarship is open to nationals of low and middle-income countries in the Sub-Saharan African region who are resident in the region as per World Bank definition: http://data.worldbank.org/about/country-and-lending-groups#Sub_Saharan_Africa

Applicants should be under 55 years old for the Post-Doctoral fellowships. Applicants must meet the admission requirements at each respective university before applying for the fellowship.

THE POST-DOCTORAL FELLOWSHIP PACKAGE:

The scheme will provide full scholarships for Seven Fellows from the 2024 academic year. Each Fellowship carries an attractive financial package per annum. The fellow may apply for additional funding in agreement with the Supervisor, for research costs, and conference support, on a competitive basis. The Fellowship is exclusive to DELTAS Africa SSACAB II and cannot be held concurrently with another job or supplementary funding.

ADDITIONAL POST-DOCTORAL FELLOWSHIP INFORMATION:

Post-Doctoral fellowship applications must focus on one of SSACAB II's seven key research questions that can be used to address some of the major health challenges in Sub-Saharan Africa:

1. How can data science, machine learning, deep learning or artificial intelligence (AI) algorithms be used to enhance personalised treatment for patients with communicable and non-communicable diseases in Africa?
2. How will the spatial and temporal occurrence and patterns of critical diseases in Africa respond to predicted climate and environmental changes, and how will this impact public health and development outcomes?
3. Can we identify the relationship between personal characteristics, environmental changes and diseases through causal modelling and structural equation modelling?
4. How can we use observational data to assess interventions where clinical trials are unethical or to evaluate ongoing public health interventions?
5. What methods can be used to account for missing data in health research?
6. How can we use bioinformatics to enable laboratories to analyse their own omics data?
7. What biostatistics methods can be used for data triangulation and synthesis of evidence?

SUMMARY DESCRIPTION OF PARTNER'S ROLE ON THE SEVEN QUESTIONS:

Partner	Role
Wits University **University Medical Center Utrecht (UMCU)** **Wits Global Change Institute (GCI)**	Wits will lead the two themes on machine learning and planetary health to address • Research Question 1 with the UMCU: How can machine learning and artificial intelligence (AI) algorithms be used to enhance population-based prevention of, and personalised treatment for, communicable and non-communicable diseases in Africa

	• Research Question 2 with the GCI; How will the spatial and temporal methods be used to support an understanding and response of the impact of climate variability and change on human health and development in Africa respectively?
University of Abomey- Calavi	The University of Abomey-Calavi will lead research on causal modelling, expertise in eco-epidemiology and structural equations modelling to address • Research Question 3: Can we identify the relationship between personal characteristics, environmental changes and diseases through causal modelling and structural equational modelling?
Moi University	Moi University will lead the theme on analysing observational data when RCT are not feasible to address Research Question 4: How can we use observational data to assess interventions where clinical trials are unethical or to evaluate ongoing public health interventions?
University of Kwa-Zulu Natal	UKZN will lead the research theme on missing data, i.e modelling of complex high dimensional correlated data in surveys and follow-up longitudinal studies including missing data to address • Research Question 5: What methods can be used to account for missing data in health research?
KEMRI Wellcome Trust Research Programme (KWTRP)	KWTRP will lead the theme on bioinformatics to address • Research Question 6: How can we use bioinformatics to enable laboratories and research institutions in Africa to analyse their own -omics data?
University of Pretoria (UP) and South African Medical Research Council (SAMRC)	UP and SAMRC will lead the data triangulation and evidence synthesis theme to address • Research Question 7:What biostatistics methods can be used for data triangulation and synthesis of evidence?
London School of Hygiene and Tropical Medicine (LSHTM) **University Medical Center Utrecht (UMCU)**	The two Northern Partners, LSHTM and UMCU will support all the research themes with senior statistical advice and co-supervision of fellows.

APPLICATION INSTRUCTIONS:

- ❖ Potential Post-Doctoral fellowship applicants should identify a potential supervisor from the research institution or academic training institution they are interested in. The Post-Doctoral fellowship application should provide the academic training institution with:
- ❖ Proof of a PhD obtained within the last five years
- ❖ Comprehensive curriculum vitae, including relevant research and work experience
- ❖ Letter of motivation explaining the desire to pursue a Post-Doctoral fellowship in biostatistics
- ❖ Certified copies of academic transcripts and degree certificates
- ❖ A proposal outlining the plan for the fellowship not exceeding 5 pages and outlining the proposed area of research. The research proposal must have a description of the research area, highlight the research objectives, research questions and research methodology, and a clear timeframe indicating particular research inputs and outputs.
- ❖ Proven ability to write and publish papers in accredited peer-reviewed journals See accredited DHET/ISI/SCOPUS and other indexed journal lists - Publications contribute in the assessment of applications – include your full publication list.
- ❖ Two confidential referee reports to be sent directly to the Partner Institution

Post-Doctoral fellowships will be awarded to candidates who are likely to strengthen the DELTAS Africa SSACAB II institutions as either academic staff members or affiliates of research institutions within the consortium. Awarded fellows will be tracked as part of the newly established DELTAS Africa SSACAB II alumni network to increase their visibility and monitor the impact of the program. Applications should be submitted to the respective institutional lead listed below. If you need further clarification about the process please send your questions to pascalia.munyewende@wits.ac.za

LEAD INSTITUTION

Name of Institution	Country	Institutional Lead	Email
University of the Witwatersrand	South Africa	Tobias Chirwa	Tobias.Chirwa@wits.ac.za

PARTNER INSTITUTIONS

Institution	Country	Institutional Lead	Email
University Medical Center Utrecht	Netherlands	Daniel Oberski	D.L.Oberski@umcutrecht.nl
University of Abomey-Calavi	Benin	Romain Glele Kakai	glele.romain@gmail.com
Kenya Wellcome Trust Research Programme	Kenya	Samson Kinyanjui	skmuchina@kemri-wellcome.org

University of Pretoria and South Africa Medical Research Council (SAMRC)	South Africa	Samuel Manda	samuel.manda@up.ac.za
University of KwaZulu-Natal	South Africa	Henry Mwambi	mwambih@ukzn.ac.za
MOI University	Kenya	Ann Mwangi	annwsum@gmail.com
London School of Hygiene and Tropical Medicine	United Kingdom	Jim Todd	Jim.Todd@LSHTM.ac.uk