CALL FOR MSc SCHOLARSHIPS IN BIOSTATISTICS FOR THE 2024 ACADEMIC YEAR
DELTAS AFRICA SUB-SAHARAN AFRICAN CONSORTIUM FOR ADVANCED BIOSTATISTICS (SSACAB) II PROGRAMME
APPLICATION DEADLINE: JULY 31, 2023

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 Trust 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 Consortium is inviting applications for full-time MSc scholarships in Biostatistics for the 2024 academic year. The financial support provided by the scholarships aims to enhance biostatistical capacity and increase the number of researchers and practitioners in Sub-Saharan Africa. Biostatistics is a growing field in Sub-Saharan Africa due to increased biomedical data for population health and research and the need for quantitative analytical skills.

ELIGIBILITY:

MSc scholarships are open to candidates with a strong background in Statistics, Mathematics, Demography, and other quantitative fields. Additionally, the following are also encouraged to apply:
(1) Competent candidates from the health science fields, such as biomedical sciences, pharmacy, and medicine who may benefit from a postgraduate course in biostatistics.
(2) Candidates who have completed their masters' coursework and require support with their research component.

Eligible applicants should have applied for a place at either the partner or collaborating institutions offering postgraduate biostatistics degree programs.
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 35 years of age to qualify for the MSc program.

Applicants must meet the admission requirements of the respective universities offering the MSc degree before applying for the fellowship.

THE MSc SCHOLARSHIP PACKAGE:

The MSc scholarships will cover the following for selected fellows in the 2024 academic year:

- ✓ Tuition fees and basic medical insurance.
- ✓ A monthly stipend to cover accommodation and living expenses.
- ✓ Reasonable support for the MSc research project and supervision.
- ✓ Travel costs to and from the academic training institution and the host research institution.

ADDITIONAL MSc SCHOLARSHIP INFORMATION:

- ❖ Applications must include the following documents to be submitted to the academic training institution:
  - ➢ A comprehensive curriculum vitae, including relevant research and work experience.
  - ➢ A letter of motivation explaining why the applicant wants to pursue an MSc in Biostatistics.
  - ➢ Certified copies of academic transcripts and degree certificates.
  - ➢ Evidence of acceptance or application to study Biostatistics at a partner institution in the 2024 academic year.
  - ➢ Two confidential referee reports, sent directly to the training institution.

MSc scholarships will be awarded to candidates who are likely to strengthen the SSACAB II Partner and collaborating institutions either as academic staff members or through affiliation with research institutions within the Consortium. Awarded fellows will be tracked as part of the new SSACAB II alumni to increase their visibility and monitor the impact of the program.

RESEARCH QUESTIONS TO BE FUNDED:

Preferably, the candidate's proposed research should fall under SSACAB II's seven key research questions:

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 **Utrecht** **Wits Global Change Institute (GCI)**	Wits will lead two themes, [expertise in machine learning and planetary health]. Research Question 1 (RQ1):- 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 with Utrecht and RQ2 with 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]. RQ3:- Can we identify the relationship between personal characteristics, environmental changes and diseases through causal modelling and structural equational modelling?
University of Kwa-Zulu Natal	UKZN will lead the research theme on missing data [expertise in modelling of complex high dimensional correlated data in surveys and follow-up longitudinal studies including missing data]. RQ5:- What methods can be used to account for missing data in health research?
Moi University	Moi University will lead the theme on [analysing observational data when RCT are not feasible] RQ4:- How can we use observational data to assess interventions where clinical trials are unethical or to evaluate ongoing public health interventions?
KEMRI Wellcome Trust Research Programme	KWTRP will lead the theme on bioinformatics [RQ6]:- How can we use bioinformatics to enable laboratories and research institutions in Africa to analyse their own -omics data?
University of Pretoria and South African Medical Research Council (SAMRC)	UP and SAMRC will lead the data triangulation and evidence synthesis theme [RQ7]:- What biostatistics methods can be used for data triangulation and synthesis of evidence?
London School of Hygiene and Tropical Medicine **University Medical Center Utrecht**	The two Northern Partners, LSHTM and Utrecht will support all the research themes with senior statistical advice and co-supervision of fellows.

HOW TO APPLY:

The application process is two-fold:

1. Applicants should first apply for places at their preferred host training institution. Contact information for each institution and their respective Institutional Leads is provided below.
2. Separate written applications for the DELTAS Africa SSACAB II scholarship should be sent to Dr. Pascalia Munyewende: pascalia.munyewende@wits.ac.za and copied to Prof. Eustasius Musenge: eustasius.musenge@wits.ac.za

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Full list of partners and collaborating institutions in the SSACAB II training programme:

LEAD INSTITUTION

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

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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
Kemri Wellcome Trust Research Programme (KWTRP)	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

The Northern Partners listed above will not be training students, they provide Supervision support

COLLABORATING TRAINING INSTITUTIONS

University of Zambia	Zambia	Patrick Musonda	pmuzho@hotmail.com
University of Nairobi	Kenya	Patrick Weke	pweke@uonbi.ac.ke
Makerere University	Uganda	Nazarius Tumwesigye	naz@musph.ac.ug;
University of Malawi	Malawi	Jupiter Simbeye	jsimbeye@unima.ac.mw
University of Namibia	Namibia	Lawrence Kazembe	lKazembe@unam.na
Kilimanjaro Christian Medical University College	Tanzania	Michael Mahande	jmmahande@gmail.com
Stellenbosch University	South Africa	Taryn Young	tyoung@sun.ac.za
University of Gondar	Ethiopia	Tadesse Awoke Ayele	tadesse.awoke@uog.edu.et
MRC Unit, The Gambia	The Gambia	Nuredin Mohammed	Nuredin.Mohammed@lshtm.ac.uk
Kwame Nkrumah University of Science and Technology	Ghana	Emmanuel Kweku Nakua	manyorogh@yahoo.com
ISTM, Kinshasa	DRC	Prof Marie Claire Omanyondo	claireoma30@yahoo.com