**The University of KwaZulu-Natal (UKZN) is committed to Employment Equity. Preference will be given to applicants from the designated groups in accordance with our Employment Equity Plan**

**COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE**

**POSTDOCTORAL RESEARCHER: Plant phenomics and Bambara groundnut breeding**

**12 MONTHS FIXED-TERM APPOINTMENT**

**Centre for Transformative Agricultural and Food Systems (CTAFS)**

**School of Agricultural, Earth and Environmental Sciences**

**PIETERMARITZBURG CENTRE**

**REF NO. CTAFS/24/4**

**Position Overview**

The Centre for Transformative Agricultural and Food Systems (CTAFS) at the University of KwaZulu-Natal seeks a highly motivated Postdoctoral Research Fellow to advance research on Bambara groundnut. The project focuses on leveraging genomic tools to identify key regions associated with agronomic performance and cooking quality, aiming to integrate marker-assisted selection in breeding programs tailored to Southern African conditions. This position suits a candidate with a strong background in plant genomics, crop science, crop breeding, digital phenotyping and data analysis. The fellowship is for 12 months and is renewable based on performance and funding availability.

**Responsibilities**

1. Conduct GWAS and QTL mapping to identify genomic regions associated with key traits in Bambara groundnut.
2. Perform genotyping-by-sequencing (GBS) and manage phenotypic evaluations.
3. Collaborate with a multidisciplinary team of geneticists, breeders, and agronomists.
4. Analyse and interpret large-scale genomic and phenotypic datasets using advanced bioinformatics tools.
5. Publish research findings in high-impact journals and present results at conferences and seminars.
6. Supervise postgraduate students and contribute to capacity building.
7. Engage in grant writing and preparation of technical reports.

**Minimum requirements**

* A recent Ph.D. in plant genetics, crop science, crop breeding or related disciplines completed within the past five years.
* Proficiency in statistical and bioinformatics tools like R, GenStat, OriginLab or TASSEL.
* Experience in conducting field experiments, data collection, statistical analysis, and data interpretation.
* Experience working with Bambara groundnut or legume crops.
* Proficiency in crop digital phenotyping and relevant software tools for data analysis and visualization [OriginLab, R, GraphPad Prism and Matlab].
* Excellent oral and written communication skills, with the ability to effectively present research findings to scientific and non-scientific audiences.
* Strong publication record in peer-reviewed scientific journals (at least five publications in Q1 journals).

**Advantages**

* Proven ability to work collaboratively in interdisciplinary research teams.
* A driver’s license.

Inquiries about the post can be directed to Prof Maxwell Mudhara: [Mudhara@ukzn.ac.za](mailto:Mudhara@ukzn.ac.za)

Applicants are required to submit the following: (1) Curriculum vitae (CV), including a list of publications; (2) Letter of motivation; (3) Full academic records, and (4) contact details of three professional references to Ms Nopayi Mkhize ([MkhizeN34@ukzn.ac.za](mailto:MkhizeN34@ukzn.ac.za))

The deadline for receiving applications is 20 December 2024.

**The advert Reference Number MUST be clearly stated in the subject line.**

**Kindly note that the University of KwaZulu-Natal (“the University”) is required to process any Personal Information (as defined by the Protection of Personal Act, 2013 “POPIA”) submitted by candidates when applying for positions at the University. The University will endeavour to ensure that the appropriate security measures are in place and implemented for both electronic and paper-based formats that are used for processing of the personal information recorded through this recruitment and selection process. We refer you to the University’s relevant Section 18 notice at**

<http://vacancies.ukzn.ac.za/Libraries/General_Documents/Section_18_Notice_-_Employees_and_Potential_Employees.sflb.ashx>