



NWU®

*Centre of Excellence
for Nutrition*

Postdoctoral fellow in Bioinformatics in Health Sciences

Centre of Excellence for Nutrition

North-West University, Potchefstroom, South Africa

Are you a passionate researcher with expertise in genetic epidemiology and bioinformatics? Do you have a keen interest in unravelling the mysteries of gene regulation and its implications in human health and disease? We are seeking a highly motivated Bioinformatician with a background in Health Sciences to join our dynamic team as a Postdoctoral Researcher. This exciting opportunity will allow you to contribute to cutting-edge research and make a significant impact on public health.

You will join the team at the Centre of Excellence for Nutrition (CEN) at the North-West University, Potchefstroom, South Africa. CEN's overall research theme is nutrition for health and development of all South Africans. The position that is available is specifically in the field of Bioinformatics in Health Sciences. Our research institution is a leading centre of excellence in health and nutrition studies. We are dedicated to advancing scientific knowledge and promoting evidence-based interventions to improve population health. As a Postdoctoral researcher, you will have access to state-of-the-art facilities, collaborative research opportunities, and a supportive environment that nurtures professional growth.

This position is available for a period of one to three years (depending on progress). Candidates should meet with the following requirements:

Responsibilities:

1. As a Bioinformatician, one of your main responsibilities will be to lead the data management and analyses for various research projects. These include:
 - Integration and analysis of large-scale population-based genome-wide DNA methylation and genomic data as part of the [Diverse Epigenetic Epidemiology Partnership](#) (DEEP) study. This international collaboration aims to improve global health by uncovering the effects of genomic and environmental diversity on differences in disease risk observed across the global population.

- Association and functional analysis of genomic data aimed at clarifying the roles of fibrinogen and factor XIII in thrombotic diseases. This project forms part of a collaborative effort with the Cohorts for Heart and Aging Research in Genomic Epidemiology (CHARGE) consortium and Trans-Omics for Precision Medicine (TOPMed) Hemostasis Working Group.
 - Analysis and interpretation of tissue-specific transcriptomic data obtained from nutritional intervention studies using rodent models.
2. Collaborating with multidisciplinary research groups to advance scientific knowledge in the field.
 3. Presenting research findings at conferences and publishing in peer-reviewed journals.
 4. Post-graduate supervision.

Qualifications:

- A Ph.D. in Bioinformatics in Health Sciences / Biomedical Science or a related field.
- Expertise in genetic and epigenetic data generation techniques, including but not limited to next-generation sequencing, ChIP-seq, RNA-seq, DNA methylation analysis and micro-array analysis.
- Proficiency in data analysis using a variety of bioinformatic software and tools such as R, Python, CLC Bio, and SAS/STATA.
- Excellent written and oral communication skills.
- Ability to work both independently and collaboratively in a multidisciplinary research environment.
- A track record of scientific productivity demonstrated by publications in reputable journals.

Job specification:

- Data and database management.
- Manuscript writing and publication.
- Collaborate in established projects.
- Conduct own research.
- Post-graduate student supervision.

A tax-free remuneration of R249 000 per year is offered which is comparable to a salary of a lecturer and is sufficient to cover living expenses for a single person. For international candidates we also offer a travel grant of R20 000 as well as a small research grant.

Potchefstroom is a university city of about 150 000 people in the North West Province of South Africa about 130 kilometres south-west of Johannesburg. The North-West University comprises of three campuses of which the Potchefstroom campus is the largest. The Centre lies within the Faculty of Health Sciences and cooperates closely with various national and international research groups. The research team is very active and has been doing top quality research for more than 20 years.

Application for this position must be done in writing and should include a detailed CV. Applications may be emailed to the email address below.

The closing date for the application of this position is 19 April 2024 and the starting date will be 1 July 2024 or as early as possible thereafter.

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