



## Postdoctoral Research Fellowships

### Molecular Epidemiology, Human and Pathogen Genomics and Bioinformatics (x3)

**Scope of Research:** We are seeking to appoint three post-doctoral fellows with great potential and ambition to become leading scientists. These positions will work with some of the best genomics and bioinformatics scientists in the world. We aim to identify both pathogen and human genomic variation that are associated with the transmission and virulence of pathogens and the development of diseases.

The fellows will have access to data generated at the largest and most automated genomic facility in Africa and will analyse and/or code software for high-throughput genomic data generated in Illumina Novaseq6000s, Nextseq2000s, Oxford Nanopore Technologies (ONT) GRIDIons and Genexus sequencers. CERI and KRISP have access to novel sequencing and diagnostic technologies in collaboration with industry. **Our vision is to be a leader of the fast moving field of genomics data generation and analysis to save lives in real-time.**

The post-doctoral fellows will also join a very diverse, collaborative and high-performance team of > 10 bioinformaticians and data scientists and will have access to high quality data from large clinic and population-based cohorts as part of collaborative clinical and epidemiological networks in South Africa, Africa and Latin America.

Post-doctoral fellows will be mentored by leading scientists, bioinformaticians and clinicians, who commonly publish in some of the top biomedical journals (i.e. Nature, Science, Cell, Lancet and NEJM) but more importantly, they will be developing science that save lives and have global impact.

Postdoctoral Fellows will be awarded a well-paid tax-free fellowship for up to 3 years. Once appointed, the successful candidates will be supported to apply for externally funded personal fellowships and grants in order to advance their career. CERI and KRISP will provide world class scientific support and train the fellows in grantsmanship so they can compete for international grants and fellowships. Fellows can also get training in ISO15189



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genomic diagnostics. One of our main visions is to develop scientists that can succeed in both the academic and industrial careers.

The fellows will be able to select the location of the positions, which can be based in any of our three state-of-the-art campuses: CERI campus at School for Data Sciences and Computational Thinking in Stellenbosch, CERI Genomics Facility at the BMRI building, Faculty of Medical and Health Sciences Stellenbosch Campus in Cape Town or at KRISP genomics and bioinformatics facilities at K-RITH Building at UKZN in Durban,

**Hosts:** Prof Tulio de Oliveira, Dr. Eduan Wilkinson, Dr. Richard Lessells, Dr. Jennifer Giandhari and Dr. Cheryl Baxter, CERI at Stellenbosch University and KRISP at UKZN.

**Requirements:**

Minimum requirements for positions:

- PhD in Biological Sciences or a related subject
- Genomics and/or bioinformatics experience at PhD and/or MSc level
- Experience in publishing in top international peer reviewed journal
- Advanced data analysis expertise (e.g. R, Python, JAVA or other statistical or programming language).
- Experience working with the analysis of viral, bacterial and/or human genomes.

Advantages

- Phylogenetics/evolutionary biology analysis expertise.
- Dashboard and Web-design expertise using relational database.
- Strong project management skills.
- Hobbies and interest to live and thrive in South Africa.

Please note that postdoctoral fellows are not appointed as employees and their fellowships are awarded tax free. They are therefore not eligible for employee benefits.

**Commencement of duties:** *as soon as possible*

**Closing date:** 1 June 2022

**Application process:** *Send a letter of application, accompanied by a comprehensive curriculum vitae, including list of publications, a motivation letter that speaks to the specific requirements of the position and the names and contact details of two referees, to Mrs Zethu Luthuli, [luthuliz@sun.ac.za](mailto:luthuliz@sun.ac.za)*

