

## DST-NRF PROFESSIONAL DEVELOPMENT PROGRAM (PDP) PHD FELLOWSHIP IN

### *Genomics, Bioinformatics & Molecular Epidemiology*

#### **Mentors:**

**Prof. Tulio de Oliveira:** Research Associate CAPRISA, Professor UKZN

**Prof. Ayesha Kharsany:** Senior Scientist, CAPRISA

The PDP Programme at CAPRISA aims to develop and retain South African scientists and professionals of the highest calibre. The genomics and bioinformatics project is inter-disciplinary and involves collaboration between the DST-NRF Centre of Excellence in HIV Prevention and the UKZN MRC Flagship Program, which are two of the most prestigious research programs in South Africa.

This PhD project aims to generate HIV genomic data and apply molecular epidemiology techniques to describe the characteristics of HIV transmission and drug resistance networks in the study population. These results will be combined with detailed demographic information in order to identify patterns of inter- and intra-community transmission of HIV in the study population.

#### **The aims of the project are to:**

- Determine the genetic characteristics of transmitted HIV strains.
- Identify strain-specific geographical clusters of new HIV infections.
- Characterise “high transmitter characteristics” in terms of their socio-demographic, behavioral and geographic attributes.

The student will also receive hands-on laboratory experience in Next Generation Sequencing techniques and training in Bioinformatics and epidemiology.

*The PhD fellow will be awarded a fellowship stipend of ZAR 180,000 per annum. Applications are invited from South African or permanent resident students. Please submit a CV and a letter of motivation (max. 500 words) by 20 October 2016 to [sma.mzobe@caprisa.org](mailto:sma.mzobe@caprisa.org)*