



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Veterinary Science

NRF Post-doc fellowship (2022-2024)

Department Veterinary Tropical Diseases

Deadline: 22 December 2021

Research subject(s): Molecular biology, Genomics, Transcriptomics, NGS and Data analysis

Fellowship duration: 2 years (starting date: 01 February 2022)

Requirements:

1. South African Citizen or Citizen of an African country
2. Ph.D. degree in a relevant field, preferably obtained within the last five years.
3. Bioinformatic experience and experience working with whole-genome sequencing data.
4. Drivers license or International drivers license

Value of fellowship: R220 000/annum, non-taxable

Research background: Comprehensive molecular phylogenetic analysis of the 18S rRNA genes of piroplasms have shown that *Theileria equi* sequences are placed in a monophyletic clade separate from the *Theileria sensu stricto* and *Babesia sensu stricto* clades. Whole genome sequencing and in-depth phylogenetic analysis of the *T. equi* Florida isolate further supported the placement of this parasite in a new genus. Within the *T. equi* clade, five 18S genotypes have been identified (genotypes A to E). In South Africa, *T. equi* isolates obtained from infected horses and zebras have genetically diverse parasite genotypes based on distinct 18S rRNA gene sequences. It has been suggested that such genotypic diversity could be interpreted as distinct lineages and therefore species. Understanding the diversity of these parasites is important before appropriate diagnostic tests can be developed, and this will best be achieved by obtaining sequence data from each of the *T. equi* genotypes identified.

The post-doctoral fellow will be expected to assist in the training and supervision of research MSc and PhD students within the group. The fellow will also oversee the molecular characterization, and *in vitro* culture of parasite genotypes. He/She will be responsible for generating NGS and transcriptome data and conducting WGS analysis.

CONTACT PERSON: Dr. Raksha Vasantraai Bhoora, Department of Veterinary Tropical Diseases

E-mail: raksha.vasantraibhoora@up.ac.za

Please send your CV, certified qualification certificates and a motivational letter to the above-mentioned contact person. Two academic reference letters will be an advantage in the selection of the successful candidate

Deadline for submission of applications: 22 December 2021