



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Veterinary Science

Post-doctoral fellowship in virology available in the Department Veterinary Tropical Diseases

Project title: Development/evaluation of rapid pen-side tests to diagnose foot-and-mouth disease (FMD) in the field

Study duration: 3 years (starting date: immediately)

Minimum academic requirements: PhD degree in molecular biology/biochemistry

Restriction: This call is restricted to South African applicants only

Added advantage and preference: Undergraduate veterinary degree

Funding: Research funds and stipendship (R220,000 per annum)

Background: Control of FMD, as for all infectious diseases, is dependent on effective surveillance. The problem with current surveillance approaches for FMD is that they are based on physical inspection and, to a limited extent, on laboratory-based testing where the results only become available some weeks later. In Southern Africa where the Southern African Territories (SAT) serotypes of FMD virus predominate many, if not most, infections of both ruminant wildlife and domestic livestock are subclinical. Current surveillance systems are insensitive and therefore of limited value. To correct this deficiency, sensitive and specific close-to-real-time (pen-side) systems are required that enables detection of FMD virus antigens or antibodies. There are a number of commercially available test systems that may be suitable for the above purpose but their accuracy needs to be verified independently in the laboratory and the field. If none of the available systems prove sufficiently sensitive and specific, a new approach may need to be devised.

Aims of the project: The aims of the project are to (1) assemble a panel of suitable candidate test systems available commercially or possibly from other sources, (2) identify and procure a panel of appropriate field samples for testing, (3) evaluate the accuracy of the test systems in the laboratory and, if possible, also in the field, using the panel of field samples. Depending on the results, further actions may be necessary to procure a workable system.

- **CONTACT PERSON:** Prof. Melvyn Quan, Department Veterinary Tropical Diseases; E-mail: melvyn.quan@up.ac.za Telephone: +27 (0)12 529 8142

Please send your CV, certified academic records 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: 23 February 2021