



PROFILE

I have always been driven by a passion to discover and find solutions for everyday life challenges with effective ideas starting from basic research. Through my MTech research project at the ARC, the targets that were required have equipped me with the necessary skills I need in order to be innovative and a self-driven individual. There was constantly a demand to be productive in every aspect of my research and the diagnostic environment. I now have a solid foundation in research and diagnostics, this has motivated me to pursue my PhD studies. I am now able to comprehend new techniques and to be skilled when new methods are to be developed. The exposure to a variety of methods in our field of veterinary technology, within different laboratories have thoroughly improved my knowledge.

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HOBBIES

Reading

Cooking

CURRICULUM VITAE

Mrs Refiloe Malesa

Gender: Female

Nationality: black South African

Current Position: Research Technician

EDUCATION

University of South Africa (2022 Jan-Present)

PhD in Life Sciences (Molecular Biology-NGS)

Tshwane University of Technology [2020 Mar]

MTech in Veterinary Technology (Molecular biology-NGS) *cum laude*

Tshwane University of Technology [2014 Jul]

BTech in Veterinary Technology

Tshwane University of Technology [2011 Dec]

National Diploma in Veterinary Technology

WORK EXPERIENCE

Agricultural Research Council [2015 APRIL- Present]

I joined the ARC, Transboundary Animal Diseases section as research technician in a BSL-3 facility. Responsible for; (i). Conduct diagnostic testing in the area of Molecular biology (DNA/RNA extractions, setting up both conventional and Real-time PCR, gel electrophoresis, and preparation of samples for sequencing), Serology testing (Virus neutralisation test, and ELISA). ii) Virus isolations for both Foot and mouth and African swine fever virus. iii) Conducts efficacy tests on disinfectants focusing mainly on FMDV and ASFV. iv) Research planning and training of postgraduate students on various methods. v) Maintenance of the quality system in the laboratory by conducting internal audits, identifying non-conformance and analysing the root-causes along with implementation of corrective actions as per the ISO 17025 standard. vi) Writing reports and presenting research work at conferences.

Vetdiagnostix Cape [2013 AUG - 2015 MAR]

As a Junior laboratory manager, I have worked in clinical pathology laboratory where my Responsibilities where to; i) Conduct Haematology and Biochemistry testing on blood, blood smear analysis, urine analysis, parasitology, general bacteriology, mastitis tests on milk samples. ii) Dispatch drivers for collection of samples, attend to clients queries and send out reports. iii) Stock control for all consumables and reagents required in the laboratory.

Cape Animal Clinical Pathology [2012 JUL - 2013 JUL]

As a Veterinary technologist my responsibilities where to; i) Conduct Haematology and Biochemistry testing on blood general bacteriology. ii) Dispatch drivers for collection of samples, attend to clients queries and send out reports.

Vetdiagnostix Pietermaritzburg [2011 JAN - 2012 JUN]

As a Veterinary technologist my responsibilities where to; Conduct media general and Food microbiology testing, parasitology (identifying parasites on sheath washes, oocysts counts on faecal material and sperm counts for bulls), ELISA tests using commercial kits, cutting of histopathology sections.

RELEVANT TRAINING/COURSES

- ☐ Molecular Techniques
- ☐ RT-PCR
- ☐ RT-qPCR
- ☐ RNA/DNA purification
- ☐ Whole Genome Sequencing
- ☐ Bioinformatics
- ☐ ELISA (In-house & kits)
- ☐ Virus neutralization tests
- ☐ Cell culture techniques
- ☐ Primary Bone marrow cultures
- ☐ Virus isolation techniques
- ☐ Efficacy testing of Disinfectants
- ☐ General bacteriology
- ☐ Media preparation
- ☐ Clinical pathology (Biochemistry)
- ☐ Clinical pathology (Haematology)
- ☐ Parasitology
- ☐ Mastitis tests
- ☐ Somatic cell count
- ☐ Sheath wash and sperm analysis
- ☐ SANAS - Internal auditing
- ☐ SANAS – Laboratory systems
- ☐ ISO/IEC 17025:2017 standard
- ☐ Animal Research ethics
- ☐ Research methodology
- ☐ Waste packaging
- ☐ Infectious Material shipment
- ☐ Method Validation

COMPUTER SKILLS

- ☐ CLC genomics
- ☐ Sequencher – DNA analysis
- ☐ Geneious prime software
- ☐ MEGA Software
- ☐ Galaxy bioinformatics
- ☐ Pathogen Asset control System
- ☐ Windows, Microsoft Office & Email

OTHER SKILLS

- ☐ Training on ISO 17025:2017
- ☐ Training Postgraduate & undergraduate students

PERSONAL LIFE SKILLS

- ☐ Co-operative
- ☐ Innovative
- ☐ Initiative
- ☐ Independent
- ☐ Efficient
- ☐ People-oriented
- ☐ Passionate
- ☐ Goal driven
- ☐ Team player

CONFERENCES

-The 9th SA Veterinary & Paraveterinary & SASVEPM Congress held at Birchwood OR Tambo Conference centre on 25-27 July 2017: Oral Presentation

-The 10th Veterinary and Paraveterinary Congress held at Emperors Palace, Kempton Park, Gauteng on 16-18 July 2019: Oral Presentation

-Virology Africa 2020 Conference held at Radisson Blu Hotel V&A Waterfront Cape Town, on 10-14 February 2020: Poster presentation

PUBLICATIONS

Chukwudi, I.C., Mira, F., Ogbu, K.I., **Malesa, R.P.**, Purpari, G., Luka, P.D., Ugochukwu, E.I., Heath, L.E., Guercio, A. and Chah, K.F., **2021**. Peste des petits ruminants in Nigeria: identification and variations of lineage II and lineage IV in sheep and goats. *Veterinaria Italiana*, 57(3).

Chukwudi, I.C., Ogbu, K.I., Luka, P.D., **Malesa, R.P.**, Heath, L.E., Ugochukwu, E.I. and Chah, K.F., **2020**. Comparison of colorimetric loop-mediated isothermal amplification kit and reverse transcription-polymerase chain reaction in the diagnosis of peste des petits ruminants in sheep and goats in Southeast Nigeria. *Veterinary World*, 13(11), p.2358.

Ndlovu, S., Williamson, A.L., **Malesa, R.**, Van Heerden, J., Boshoff, C.I., Bastos, A.D., Heath, L. and Carulei, O., **2020**. Genome sequences of three African Swine fever viruses of genotypes I, III, and XXII from South Africa and Zambia, isolated from Ornithodoros Soft Ticks. *Microbiology resource announcements*, 9(10), pp.e01376-19.

REFERENCES

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