

## [Prof Marinda C Oosthuizen](#)

BSc (Agric), BSc (Agric)(Hons), MSc, PhD

**Associate Professor**



### **Office**

Room 2-20.3  
Paraclinical Building

### **Telephone**

+27 12 529 8390

### **Email**

[marinda.oosthuizen@up.ac.za](mailto:marinda.oosthuizen@up.ac.za)

### **Current subjects**

Molecular Biology

### **Research interests**

1. Molecular characterization of tick and tick-borne diseases
2. Molecular diagnostics
3. Bioinformatics
4. Phylogeny

### **Academic and professional experience**

10 years experience as researcher

### **Research output/publications**

16 publications in peer-reviewed or refereed journals  
76 congress proceedings  
1 technical manual

### **Academic and professional memberships**

Member of the South African Parasitology Society of South Africa (PARSA)  
Member of the International Consortium of Ticks- and Tick-borne Diseases (ICTTD)

## **Biography**

Marinda Oosthuizen was born in Pretoria and completed her undergraduate and postgraduate studies at the University of Pretoria where she obtained her degrees *cum laude*. In 1998 she obtained a PhD with a thesis entitled "Taxonomy and phylogeny of aerobic Gram-negative heparinase producing bacteria". During 1999 to 2001 she completed postdoctoral fellowship at the University of the Witwatersrand on the topic "Proteomic investigation of a dairy-associated *Bacillus cereus* biofilm". She joined the Department of Veterinary Tropical Diseases, Faculty of Veterinary Science, University of Pretoria in 2002 as a Research officer, was appointed as senior lecturer in 2007, and promoted to Associate Professor in January 2012. Marinda Oosthuizen has a C2-rating from the NRF and she was the joint-winner of the Faculty of Veterinary Science "Researcher of the Year" award in 2011. She has published 32 papers in peer-reviewed journals and her findings have been presented at various national and international conferences. There are currently 1 postdoctoral fellow, 2 PhD and 3 MSc students enrolled under her supervision. During the past 6 years she successfully supervised and/or co-supervised 1 postdoctoral fellow, 5 PhD, 9 MSc and 4 Honours students. Furthermore, she is a council committee member of the Parasitological Society of Southern Africa (PARSA).

## Research interests

### Tick-borne protozoal and rickettsial diseases

Marinda Oosthuizen is established in the field of molecular veterinary parasitology; focusing on molecular diagnostic assay development and the molecular characterization of novel tick-borne blood parasites (*Theileria*, *Babesia*, *Ehrlichia* and *Anaplasma* species) of domestic and wild animals, including those that threaten endangered and rare wildlife species. Some of the highlights include the identification of novel *Babesia* and *Theileria* species from sable, roan and giraffe as well as the development of a *Theileria parva*-specific real-time PCR assay for the detection of *T. parva* (causing Corridor disease in South Africa) in buffalo and cattle.

Some of her current research projects include (i) "Identification and molecular characterization of *Anaplasma* species of the African buffalo (*Syncerus caffer*)", (ii) "Molecular characterization of vaccine candidates from *Anaplasma marginale* strains in South Africa, (iii) "Wildlife species as reservoir hosts of tick-borne haemoparasitic diseases impacting on livestock production in South Africa: Identification and molecular characterization of these parasites using a metagenomics approach" and (iv) Discovering emerging tick-borne pathogens that could impact on human health and livestock production in South Africa: Developing real-time PCR assays for the specific and sensitive detection of these pathogens.

### Publications

Click [here](#) to view a list of publications.

### Postgraduate Students

Name of student	Degree	Project title
<a href="#">Dr Richard Burroughs</a> (RSA)	Web-based MSc (Veterinary Tropical Diseases)	Identification and molecular characterization of <i>Babesia</i> spp. from spotted and brown hyena.
<a href="#">Ms Nicole Liesching</a> (RSA)	Web-based Msc (Animal/ Human/ Ecosystems Health)	Antelope species as reservoir hosts of tick-borne haemoparasitic diseases impacting on livestock production in South Africa: Identification and molecular characterization of these parasites.
<a href="#">Mr Dewald Eygelaar</a> (RSA)	MSc	Characterization of <i>Theileria parva</i> in the African buffalo ( <i>Syncerus caffer</i> ) from Northern Botswana using the p67, p104 and polymorphic immunodominant molecule (PIM) genes.

<p><a href="#">Dr Charles Byaruhanga</a>(Uganda)</p>	<p>PhD</p>	<p>Epidemiological dynamics and diversity of <i>Theileria</i>, <i>Anaplasma</i> and <i>Babesia</i> infections in cattle in different livelihood zones of Karamoja sub-region, Uganda.</p>
<p><a href="#">Ms Zama Khumalo</a>(RSA)</p>	<p>PhD</p>	<p>Detection, differentiation and phylogenetic relationship between <i>Anaplasma marginale</i> and <i>A. marginale ss centrale</i>.</p>
<p><a href="#">Mrs Mamohale E Chaisi</a> (Lesotho)</p>	<p>Postdoctoral fellow</p>	<p><i>Anaplasma</i> vaccine development: To determine if the structure and antigenicity of eight identified vaccine candidates are conserved between North American and South African strains of <i>A. marginale</i>.</p>