



Professor Mary-Cathrine Madekurozwa
BVSc, BSc (Hons), PhD (Glasgow)
Full Professor: Veterinary Anatomy
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Summary CV

Professor Mary-Cathrine Madekurozwa is a histologist and gross anatomist based in the Department of Veterinary Anatomy and Physiology at the Faculty of Veterinary Science, University of Pretoria. Her primary area of research is avian reproduction, with her technical expertise being immunohistochemistry and ultrastructure. She received her Bachelor of Veterinary Science and Bachelor of Veterinary Anatomy (Honours) degrees from the University of Zimbabwe, and her PhD in Veterinary Anatomy from the University of Glasgow (UK).

Research Expertise

Prof. Madekurozwa is a leading researcher in the field of avian reproduction. In 1998, she started a research project on the reproductive biology of ostriches, a species important to the economies of Southern Africa. The main objective of the project was to provide baseline morphological information on the reproductive system of the ostrich. The project later developed into a European Union-funded collaborative project with the Faculty of Veterinary Medicine at Utrecht University in the Netherlands. In 2002, the research resulted in the first ever report on precocious testicular activity in the immature ostrich, published in *Reproduction*, a leading international journal. In 2003 Prof. Madekurozwa was awarded a German Academic Exchange Service (DAAD) research fellowship by the German government, which enabled her to continue her research on ostrich reproduction at the Faculty of Veterinary Medicine, University of Munich.

Prof. Madekurozwa's interest in endocrine disrupting chemicals began in 2007 with a project on the effect of the agricultural pesticide carbendazim on the reproductive function of birds, using the Japanese quail as an avian model. In 2010, she expanded her research to include phthalates, which are endocrine disruptors mainly targeting the testis. Professor Madekurozwa currently leads a research group whose main focus is elucidating the mechanisms through which endocrine disruptors disrupt reproductive activity in birds.

Postgraduate Students

Post-doctoral

Dr Samuel “Debo” Olukole completed his PhD at the University of Ibadan (Nigeria) in 2014. Debo is currently working on the reproductive biology of the African Sideneck turtle.

PhD

- Ms Reneilwe Molele was awarded her Masters of Science (Zoology) degree *cum laude* by the University of Limpopo in 2016. Reneilwe is currently working on the effects of phthalates on Sertoli cells and the blood-testis barrier.
- Mr Mohammed Ibrahim completed his Masters in Veterinary Science (Anatomy) degree at the University of Khartoum (Sudan) in 2016. Mohammed is currently working on the effects of phthalates on the excurrent duct system.
- Mr Phumudzo Phaswana was awarded his Masters in Science (Veterinary Science) degree *cum laude* by the University of Pretoria in 2016. Phumudzo is currently working on the effects of phthalates on Leydig cell steroidogenesis.

MSc

- Ms Siyamankela Gunuza completed her undergraduate training at the Sefako Makgatho Health Sciences University. Siya obtained her Bachelor of Science degree in 2015 and her Bachelor of Science (Honours in Biochemistry) in 2016. She is currently working on the effects of phthalates on the cloacal gland.
- Mr Lindokuhle Khumalo completed his undergraduate training at the University of Zululand in 2017. Lindo is currently working on the effects of phthalates on the testicular peritubular boundary tissue.
- Mr Mike Mpango completed his undergraduate training at the University of Makerere (Uganda). Mike is currently working on a study comparing the light and ultrastructural morphology of the oviduct in laying and moulting commercial hens.