UP Veterinary Science master's student wins Belgian prize for dissertation

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The Prize for Global Research of the Province of Antwerp recognises research that contributes to global science for health worldwide.

South African veterinarian Dr Hendrik Swanepoel, a University of Pretoria (UP) master's student in Veterinary Science, recently won the 2021 Prize for Global Research of the Province of Antwerp for his thesis on viral diseases in African hoofed mammals (ungulates). This prominent award recognises the best master's dissertations across selected fields and the researcher's contribution to global science for health worldwide.

Dr Swanepoel completed his master's degree through a collaborative programme between the Department of Veterinary Tropical Diseases in UP's Faculty of Veterinary Science and the Institute of Tropical Medicine (ITM) in Antwerp, Belgium.

"I am honoured to represent the Institute of Tropical Medicine and the University of Pretoria, and to be awarded this prestigious prize – this is a personal driver for me to work towards the conservation of biodiversity through One Health," said Dr Swanepoel, who is the laureate of the Master of Science in Tropical Animal Health programme. His thesis, titled 'A scoping review of viral diseases in African ungulates', aimed to identify knowledge gaps in viral disease among the African ungulate population. Dr Swanepoel has published content based on his dissertation in the high-impact international journal Veterinary Sciences.



Dr Hendrik Swanepoel's (pictured) goal with his research was to identify viruses that have a major impact on ungulates in Africa, and to identify neglected or understudied viruses

The Prize for Global Research has been awarded annually since 1996 to students with the best research projects of the master's programmes of six institutes based in Antwerp. The projects must have relevance for research and development in the Global South, and may include research in the fields of economics, politics, society, culture, environment, (public) health or medicine (human and animal). The prize consists of a medal, certificate and a cash prize. In the 2021 award cycle, four laureates from ITM were recognised, from Belgium, Germany and Cameroon, along with Dr Swanepoel.

"The prize is an important recognition of the research conducted by ITM master's students/alumni, and serves as an important stimulus to pursue their work in their fields of expertise and to contribute to global science for health worldwide," Director of ITM Dr Marc-Alain Widdowson said. "This prize promotes the advancement of science and health for all through the support of qualitative and original research with development and societal relevance."

Under the supervision of Professor Melvyn Quan and Dr Jannie Crafford, both from UP's Faculty of Veterinary Science, Dr Swanepoel's goal with his research was to identify viruses that have a major impact on ungulates in Africa, and to identify neglected or understudied viruses. Thirty-two virus species were identified in 50 African ungulates, with the most common viruses including foot-and-mouth disease, African swine fever virus, alcelaphine gammaherpesvirus 1 and the Rift Valley fever phlebovirus. Gaps in knowledge were identified for lumpy skin disease, small ruminant morbillivirus and African horse sickness.

"This study is of particular value as it provides a unique overview of the types of viruses that are present in ungulates and, in particular, those viruses that are infectious to humans or have the potential to cause disease in humans," said Prof Marinda Oosthuizen, Deputy Dean of Research and Postgraduate Studies at the Faculty of Veterinary Science. "In addition, the work may contribute to the development/adjustment of strategies to conserve some endangered ungulate species and thus protect the local ecosystem." She added that Dr Swanepoel's achievement

highlights that the continued partnership between UP and ITM is undoubtedly resulting in sustained, high-quality, multidisciplinary research, strong scientific outputs and delivery of high-quality education and online learning throughout southern Africa and Africa at large.

Dr Swanepoel obtained a Bachelor of Science (Veterinary Biology), and a Bachelor of Veterinary Medicine and Surgery (BVMS) from Murdoch University in Australia with High Distinction. He is also a recipient of the Vice-Chancellor's Award for Academic Excellence. He completed matric at St Alban's College in Pretoria in 2006 with distinctions in all subjects (with an average of above 90%), and was recognised as the Dux Scholar.

Dr Swanepoel currently practises as a veterinarian in Australia, and plans to continue his studies with a PhD in Conservation Medicine.

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