

MEDIA RELEASE

UP's Prof Wanda Markotter joins world One Health panel of experts to prevent future pandemics

PRETORIA – University of Pretoria (UP) virus and bat researcher, Professor Wanda Markotter, has been appointed to a global high-level panel of international experts which aims to curb animal-to-human disease transmission, that could trigger future pandemics similar to COVID-19.

She is one of 26 experts – selected from more than 700 global applicants – to provide science-based advice to the One Health High-Level Expert Panel (OHHLEP). This is a joint initiative by the World Health Organization (WHO), the World Organisation for Animal Health (OIE), the United Nations (UN) Food and Agriculture Organization and the UN Environment Programme to assess evidence and risk of the emergence of zoonoses (diseases that can spread between animals and humans), such as influenza, Ebola and COVID-19.

Prof Markotter, Director of UP's Centre for Zoonoses, the Department of Science and Innovation-National Research Foundation South African Research Chair and recently appointed Future Africa Research Chair, has been involved in transdisciplinary research on disease ecology in bat species in South Africa and other African countries since 2005. Her research includes extensive fieldwork that focuses on bats and potential spillover hosts, virological testing, bat biology, ecological investigations and human behaviour studies.

While the genesis of the COVID-19 pandemic has potentially been linked to bats, Prof Markotter has stressed that this question remains unresolved. "We really do not know at this stage. Though there is some evidence pointing to the presence of related viruses in bats, COVID-19 has not been detected in this species. "So, this panel is not just about bats. It concerns the potential spillover of all animal-borne diseases to humans but, more importantly, strongly focused on potential factors leading to spillover."

Prof Markotter, who will also co-chair the expert panel with Professor Thomas Mettenleiter of Germany's Federal Institute for Animal Health, said the global "One Health" approach recognises the complex and multidisciplinary issues raised by the interface of human, animal and ecosystem health.

"Environmental health has not always been properly represented in the global One Health initiative, so the inclusion of the UN Environment Programme in this new panel is extremely important," she said.

"A panel advising all four agencies simultaneously is such a huge step forward, especially to identify overlaps and gaps and optimising resources. I believe that the evidence-based advice will result in practical solutions and implementation in the future and a win-win for all involved."

Professor Tiaan de Jager, Dean of UP's Faculty of Health Sciences, noted that Prof Markotter has played a key role in conducting impactful research in the world of zoonoses and in educating the community at large. "She is a true inspiration for women in science and young emerging researchers."

He said she was involved in the establishment of UP's One Health for Change, which was initiated in 2020 to respond to the COVID-19 pandemic, and she had also built capacity among early career researchers and

students. “Prof Markotter’s appointment to the newly established One Health High-Level Expert Panel will certainly encourage engagement within the University of Pretoria, between institutions, and across geographical borders, advancing a transdisciplinary approach toward common challenges.

“Her achievement speaks to the Faculty’s focus with regards to conducting transdisciplinary research aligned to the SDGs by leveraging on the central, urban and rural research platforms and will advance capacity building.”

Prof Markotter said the expert panel had already identified specific aims at the first meeting this month and would start with systematic analyses of scientific knowledge about disease transmission, risk assessment and surveillance approaches. A key output was identifying gaps and good practices to prevent and prepare for future zoonotic outbreaks.

The environment (ecosystem health) is a key consideration as well as food production and land use changes. The panel will also develop a dynamic new research agenda and draw up evidence-based recommendations for global, regional, national and local action.

The establishment of the panel was confirmed at a virtual press conference on 20 May, attended by Dr Jean-Yves Le Drian, Minister for Europe and Foreign Affairs, France; Heiko Mass, Minister for Foreign Affairs, Germany; Dr Tedros Adhanom Ghebreyesus, WHO, Director-General; Qu Dongyu, Director-General, Food and Agriculture Organization of the United Nations; Inger Andersen, Executive Director, United Nations Environment Programme; and Dr Monique Eloit, Director-General, OIE – World Organisation for Animal Health and the two co-chairs.

Captions: Prof Wanda Markotter

Media enquiries

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ABOUT THE UNIVERSITY OF PRETORIA

The University of Pretoria (UP) is one of the largest contact and residential universities in South Africa, with its administration offices located on the Hatfield Campus, Pretoria. This 113-year-old institution is also the largest producer of research in South Africa.

Spread over seven campuses, it has nine faculties and a business school, the Gordon Institute of Business Science (GIBS). It is the only university in the country that has a Faculty of Veterinary Science which is ranked top in Africa, and overall has 120 academic departments, as well as 92 centres and institutes, accommodating more than 55 000 students and offering about 1 100 study programmes.

UP is one of the top five universities in South Africa, according to the 2019-2020 rankings by the Center for World University Rankings. It is also ranked among the top 100 universities worldwide in three fields of study (veterinary science, theology and law), and among the top 1% in eight fields of study (agricultural sciences, clinical medicine, engineering, environment/ecology, immunology, microbiology, plant and animal sciences and social sciences).

In May 2020, the annual UK Financial Times Executive Education Rankings once again ranked GIBS as the top South African and African business school. The University also has an extensive community engagement programme with approximately 33 000 students involved in community upliftment. Furthermore, UP is building considerable capacities and strengths for the Fourth Industrial Revolution by preparing students for the world beyond university and offering work-readiness and entrepreneurship training to its students.

As one of South Africa's research-intensive universities, UP launched the Future Africa Campus in March 2019 as a hub for inter- and transdisciplinary research networks within UP and the global research community to maximise 4IR innovation and address the challenges and stresses our continent and world is facing. In addition UP also launched the Javett Art Centre in September 2019 as a driver of transdisciplinary research development between the Humanities and other faculties. In November 2020 UP launched Engineering 4.0. as a hub not only for Smart Cities and Transport, but also to link the vast resources in technology and data sciences to other faculties via Future Africa. These initiatives are stimulating new thinking at the frontier of 'science for transformation'.

For more information, go to www.up.ac.za