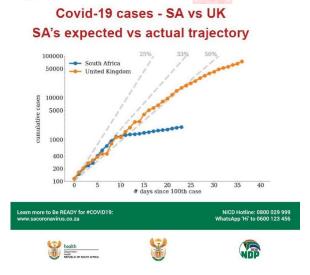
Support South Africa's Scientists on the Frontline

The COVID -19 pandemic has rapidly become the deadliest coronavirus outbreak in the last 20 years. Currently affecting 210 countries, with over 2 million cases and more than 120 thousand deaths recorded globally, the fight against COVID-19 requires urgent scientific input and action to guide the public health response.

Singapore and South Korea have closely followed scientific advice resulting in them having the best

responses to the COVID-19 pandemic. KRISP and the Big Data Flagship Program of UKZN have put together a team of world-renowned scientists, mathematicians and infectious diseases specialists to analyse South African data in real-time. Our government has already used our results to show that South Africa is flattening the curve. Our graphs are being used by the Health Minister and the Chief Scientific Officer of South Africa's COVID-19 response team to show the effect of lockdown on flattening the curve of the epidemic.

UKZN requires funding to allow us to expand our analysis to include:



- The epidemiological curve and the effects of the lockdown and other government interventions
- Application of artificial intelligence to model and predict the number of hospital beds and ventilators needed
- Characterization of outbreaks in health care facilities, transport hubs, prisons, etc.
- Trend analysis of COVID-19 cases across provinces, cities and sub-districts
- The analysis of viral genomic data to understand localized transmission

The research consortium currently comprises more than 20 researchers, including computer scientists, mathematicians, statisticians, bioinformaticians, infectious diseases clinicians, theoretical physicists and quantum computing scientists. The consortium is led by two internationally respected professors in the field of data science and genomic analysis.

Prof. Tulio de Oliveira was trained at Oxford University and was a U.K. Royal Society Fellow at the Sanger Institute in Cambridge. He is currently a Professor at the Nelson R Mandela School of Medicine at UKZN, an Associate Professor in the Department of Global Health at the University of Washington and the Director of the KZN Research Innovation and Sequencing Platform (KRISP).

Prof. Francesco Petruccione was trained in theoretical physics at the University of Freiburg (Germany). He is currently the South African Research Chair in Quantum Information Processing and Communication and the interim Director of the National Institute for Theoretical and Computational Science. As Pro Vice-Chancellor Big Data and Informatics he coordinates the "big data" initiatives of the University of KwaZulu-Natal.

We appeal to you in your personal capacity to donate to help us continue providing free, open and independent analytical services to the decision makers guiding us through this pandemic.

