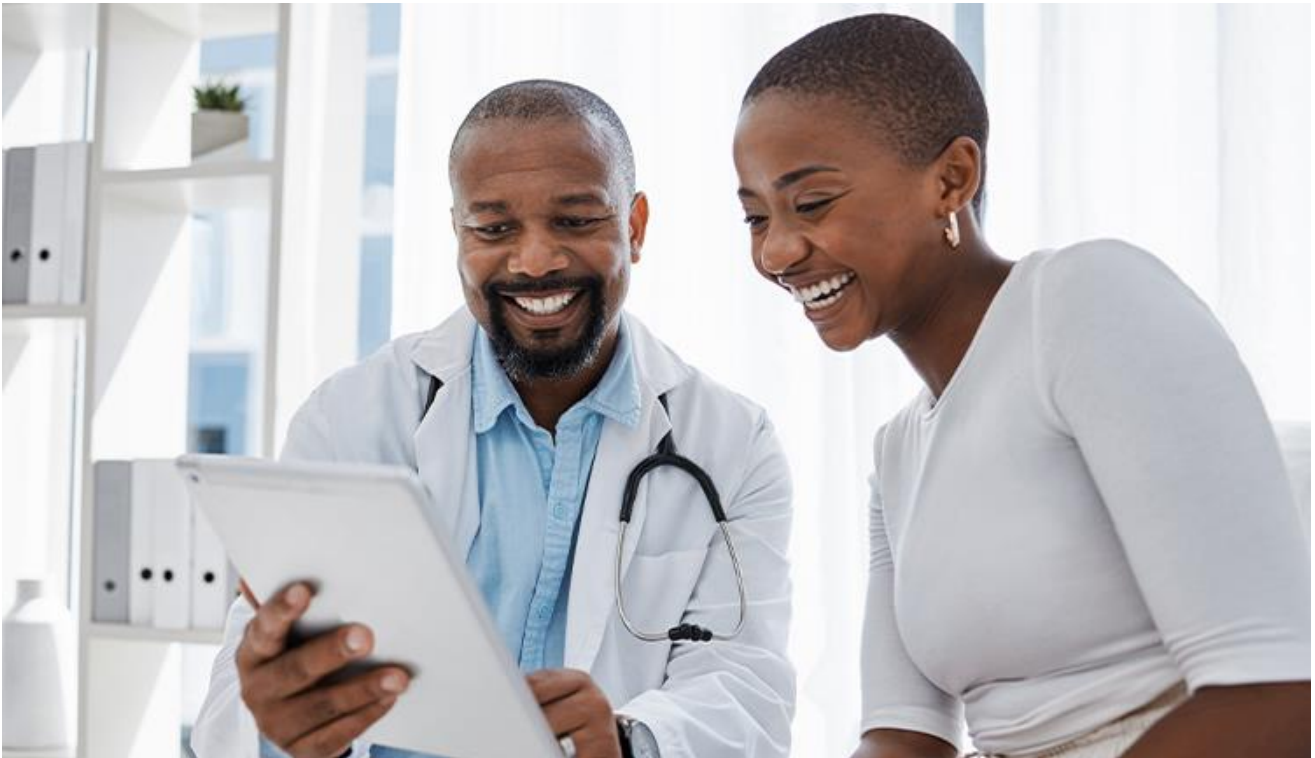


NEWS RELEASE

UP's Professor Zodwa Dlamini and Team SAMBAI secure \$25M to tackle global cancer Inequities



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PRETORIA - A global, interdisciplinary team of researchers, including the University of Pretoria's (UP) Professor Zodwa Dlamini has been selected to receive a Cancer Grand Challenges award of up to \$25m over five years to tackle the cancer inequities challenge.

Cancer Grand Challenges is a global funding platform, co-founded by Cancer Research UK and the National Cancer Institute in the US, that supports a community of diverse, global teams to come together, think differently and take on some of cancer's toughest challenges.

"I am excited and humbled by the opportunity to make a real difference in global cancer disparities with Team SAMBAI. This award is not just a milestone, but a testament to our dedication and the urgency of our cause," expressed Prof Dlamini.

Prof Dlamini is a prominent figure in the field of oncology. She is currently serving as the Director of the SAMRC Precision Oncology Research Unit (PORU), the founding Director of the Pan African Cancer Research Institute (PACRI) and the DSI/NRF-SARChI-Chair-in-Precision-Oncology-and-Cancer-Prevention (POCP) in the Faculty of Health Sciences at UP. Her involvement in Team SAMBAI and Cancer Grand Challenges serves as testament to her unwavering commitment to making significant strides in the battle against cancer in Africa and globally.

SAMBAL project

The funded project is titled "Societal, Ancestry, Molecular AND Biological Analyses OF Inequalities" (SAMBAL). The team consists of clinicians, advocates and scientists with expertise in computational biology, epidemiology, exposomics, genomics and immunology, across 15 institutions and 4 countries. The project aims to create a comprehensive biobank and data repository to study cancer disparities, especially among populations of African descent. It will examine how societal, environmental, genetic, and immunological factors contribute to cancer outcomes, focusing on prostate, breast, and pancreatic cancers which are more aggressive and have a higher incidence of early onset in Black populations. The project will be conducted across various locations, including UP, with collaborations in the US, Africa, and the UK. The project duration is set from July 1, 2024, to June 30, 2029.

This project is crucial because it addresses the urgent need to understand and mitigate cancer disparities affecting Black populations worldwide. By examining a range of factors from societal influences to genetic predispositions, the project aims to develop more effective, targeted cancer treatments and interventions, improving health outcomes and equity.

Researchers from the University of Pretoria, under the leadership of Prof Dlamini, will contribute significantly to the SAMBAL project. They will bring expertise in genomics, cancer disparities research, and methods to quantify environmental exposures and analyse epigenetic responses. The University of Pretoria will play a critical role in developing the project's biobank, conducting exposomic profiling, creating an exposome panel for partners across Africa, and establishing a standard exposome reference database. Their contribution will help build research capacity in under-resourced settings and ensure equitable access to data and treatments derived from the project's findings.

Impact of the project

The project will define interactions of environmental exposures, social determinants, and genetic ancestry that determine immunological landscapes of primary tumors and/or circulating immunological profiles in patients of African descent.

"Our project will contribute a data repository with 100K features/patient, for 40,000 patients. The impact on this population includes a novel trial design, in collaboration with our patient advocacy partners, to ensure that the specific genomic and immunological features we uncover become part of targeted precision oncology theragnostic options," said Prof Dlamini in her application for funding.

Prof Dlamini's research

Prof Dlamini is leading efforts to establish a Comprehensive Exposome Reference for Analyzing Cancer Health Disparities in Africa within the PACRI SAMBAL Site. This initiative is aligned with PACRI's vision of advancing precision oncology and reducing health inequalities across the continent.

Under her guidance, this African/PACRI Site has assembled a diverse team of experts, including oncologists, pathologists, surgeons, cancer biologists, chemists, and legal professionals. Through interdisciplinary collaboration, PACRI aims to unlock new insights into cancer disparities and improve outcomes for underserved communities.

"Our participation in Team SAMBAL as the African Site in Implementing Exposomics marks a significant step forward in cancer research and healthcare delivery in Africa," expressed Prof Zodwa. "With a focus on inclusivity and innovation, the PACRI site is poised to make a lasting impact on cancer prevention, diagnosis, and treatment across the continent."

Inequities in cancer prevention, screening, and treatment lead to disparities in cancer incidence and mortality and are a major public health concern. Team SAMBAI aims to build an unprecedented resource, which will comprise a comprehensive measurement of social, environmental, genetic and biological factors that can be used to help define the causes of disparate outcomes in the selected populations. The team will focus on prostate, breast and pancreatic cancers spanning diverse cohorts of African descent from regions of Africa, the UK and the US.

“Together with our network of visionary partners and research leaders, Cancer Grand Challenges unites the world's brightest minds across boundaries and disciplines and aims to overcome cancer’s toughest problems,” said Dr David Scott, Director of Cancer Grand Challenges.

“With this investment, our largest to date, we continue to grow our global research community, and fund new teams that have the potential to surface discoveries that could positively impact cancer outcomes.”

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Professor Zodwa Dlamini, who is part of the winning SAMBAI project

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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 its Hatfield Campus in Pretoria. This 115-year-old institution is also one of the largest producers 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 with a Faculty of Veterinary Science, which is ranked the best in Africa. UP has 120 academic departments and 92 centres and institutes, accommodating more than 56 000 students and offering about 1 100 study programmes. It has the most academic staff with PhDs (70%), NRF-rated researchers (613).

The 2024 Times Higher Education subject rankings placed UP first in South Africa in the fields of Law, Veterinary Science, Accounting and Finance; Agriculture and Forestry and Electrical and Electronic Engineering. Quacquarelli Symonds (QS) ranked the University among the top five in Africa, as part of their 2024 World University Rankings (WUR). UP was the only South African university featured in the 2023 World University Rankings for Innovation (WURI), falling within in the 101-200 range of innovative universities.

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