

UNESCO CHAIR ON INTERCULTURAL COMPETENCES WEBINAR SERIES

Medicinal plants of South Africa: a balancing act

Presented by

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10 September 2025

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About the Webinar:

South Africa has an incredible floral heritage that is characterized by high levels of species richness and endemism. Many of these plants are exploited locally as traditional medicines and the diverse ethno-cultural utilisation is thus encouraging entry of new products into global markets based on South African endemics. There are thus unique opportunities that are presented by interfacing various biotechnologies to study medicinal plants of South Africa. Using specific examples from medicinal plants that occur in the greater Cape Floristic Region, various scientific studies that illustrate opportunities for commercialization and conservation strategies are presented. These studies illustrate the exciting potential of medicinal plant biodiversity of South Africa that still remains chemically under explored that face changing climates and exploitation as phytomedicines in rural and urban settings.

About the Speaker:



My research is centred around using a multidirectional approach that combines the areas of biotechnology, ethnopharmacology and phytochemistry. In my group, we use cutting edge multi-omics technologies to study how plants function at genetic and biochemical levels in relation to the production of specialized metabolites that impart health-beneficiating properties to medicinal plants. We also aim to better characterize responses of medicinal plants to the environment to assist with the production of quality assured, economically suitable phytopharmaceuticals. Several current projects employ in vitro plant propagation methods as a scientific tool to resolve genetic-to-metabolome effects on various plant species. Exploitation of such technologies also provides a tool that allows the conservation of indigenous

medicinal plants that may face overharvesting pressures from wild populations. I have an interest in people-plant interactions and so my research is also focused on medicinal plants, their cultural significance and opportunities presented for socioeconomic development. This has led to me a collaborative partnership with the Cape Bush Doctors organization and this group of bush doctors holds deep knowledge with regards to medicinal plants of the greater Cape Floristic Region.

In 2011, I was a recipient of the National Science and Technology Forum (NSTF) Annual Award under the category Distinguished Young Black Researcher (Female), TW Kambule NRF award for 2011/12, and a Fulbright Research Scholar where I was positioned at the University of Minnesota in 2017 to 2018. In 2022, I was a finalist in the NSTF Awards for science communication. I am a founding member of the social advocacy movement founded in 2020, Black Botanists Week that aims to bring greater visibility to Black, Indigenous and People of Colour who may be formally and informally trained in terms of their interests in plants.