

# Synergising Indigenous Knowledge Systems into Business Innovation through Knowledge Management

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National Botanical Gardens, Pretoria



## Dr Vinesh Maharaj

*Combining modern sciences with ancient knowledge:  
New products from medicinal plants.*



Dr Vinesh Maharaj is a natural product chemist and is trained in the discovery of new drug leads based on biodiversity samples. Major areas of expertise include natural products chemistry, biological evaluation of extracts in close collaboration with molecular biologists/biochemists/pharmacologists, isolation, structure elucidation of compounds and biosynthesis. Prior experience was also in natural products chemistry at CSIR, specifically on isolation, structure elucidation and biosynthesis of Mycotoxins, from 1986 until 1988. Major responsibilities include the systematic investigation of 24 000 indigenous plants as part of a 10 year project aimed at discovering drugs from South Africa's indigenous plants with a focus on HIV, malaria and TB. He is one of the main inventors on the CSIR owned patent based on the discovery of a novel appetite suppressant for the *Hoodia* plant. Experience was gained as part of managing the South African component of the major international development program in conjunction with Phytopharm plc, Pfizer Inc and Unilever aimed at commercializing the CSIR discovery of the natural anti-obesity agent. The work included all aspects of the drug development process, excluding supervision of clinical trials. He also manages the CSIR component of the DST funded Novel Drug Discovery Platform which focuses on the discovery of novel drugs from medicinal plants for malaria, TB and diabetes. Other experience includes the establishment of essential oils and medicinal plants community based businesses, management of a GMP approved facility for the manufacture of herbal remedies.

Dr Maharaj obtained his PhD in Chemistry from the University of South Africa in 1998. He has been at the CSIR since 1986 in various capacities. He is now Research Group Leader of Bioprospecting at CSIR Biosciences. His current research activities include isolation and structure elucidation of biologically active compounds from biodiversity samples. Dr Maharaj leads a scientific team aimed at discovery and development of drug candidates from medicinal plants. He is involved in collaboration within a consortia of multi-disciplinary research teams in research institutes, universities, government departments and private companies, locally and abroad, aimed at discovering commercially valuable properties of the biodiversity of the host country. He provides scientific leadership of collaborative programmes with owners of indigenous knowledge such as Traditional Healers. He is currently involved in development of herbal remedies with a focus on manufacturing in a GMP approved facility for production of plant based pharmaceutical material for use in clinical trials.



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