Research Fellows and Research Projects

Department of Science and Technology (DST) – National Research Foundation (NRF) Centre in Indigenous Knowledge Systems (CIKS)

RESEARCH FOCUS AREA: TRADITIONAL MEDICINE

Knowledge holders

Researcher in the field base

Full Name: Lesibana Petrus Maema

Country of Research: South Africa, Limpopo Province

Research Topic: An ethnobotanical survey and antibacterial validation of selected invasive plant species used to treat sexually transmitted infections in Waterberg District, Limpopo Province, South Africa

Institutional Affiliation: University of Limpopo

Research Supervisor: Prof Martin Potgieter

Co-supervisor: Prof Amidou Samie (University of Venda)

Research Background/Summary

Sexually transmitted infections (STIs) are infections caused by a variety of pathogens, and continue to be a major health problem around the world. The global burden of STIs is a major

concern to the World Health Organisation. Transmission rates of STIs are reaching epidemic proportions in South Africa where infections are one of the highest in the world. Because some of the STIs can enhance acquisition and transmission of HIV, UNAIDS and the World Health Organisation recommended steps to improve STIs control and treatment.

Exploratory findings from previous studies indicated that invasive alien plants (IAPs) play a significant role in the traditional treatment of STIs in the Waterberg District (Limpopo Province). However, very little is known about other uses of invasive alien medicinal plants by the Bapedi to treat STIs. A study of this nature will contribute significantly towards closing this knowledge gap. Ethno-medicinal uses of IAPs also necessitate scientific evaluation of secondary metabolites and validation for their efficacy and quality against STI pathogens.

Outstanding research highlights

- So far 90% of the field work is been completed, currently surveying the last Local Municipality (Lephalale). When the field work is completed, the statistical analyses of the field data will be carried out to select plant species that will be used for *in vitro* studies.
- Selected plants will be validated at University of Venda for phytochemical analysis, antioxidant and antimicrobial activities as well as for cytotoxicity studies.

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