

Department of Pharmacy and Complementary/Alternative medicine

Meshack Ondora Onyambu (PF 7980)

Title of PhD Research project:

DEVELOPMENT OF LIQUID CHROMATOGRAPHY FINGERPRINTING AND OTHER QUALITY CONTROL METHODS FOR *WARBUGIA UGANDENSIS* HERBAL MATERIALS.

Abstract

The World health organization estimates that a large population of up to 85% in many developing countries relies heavily on medicinal plants for their primary health care. In spite of this popularity, lack of standard quality assurance measures poses a major challenge for the continued use in many countries, including Kenya. The World Health Organization (WHO) encouraged individual countries to construct monographs for more plants with scientific evidence of use and safe, effective ethnomedical and ethno veterinary use.

Warbugia ugandensis (sparague) is among the top ten most widely used herbal remedies in Kenya and the East African region. Studies have confirmed its antimicrobial, antifungal, antileishmanial and cytotoxic activities. Ethnomedical and ethnoveterinary information show that the plant was and is still being used in treating malaria, Leishmaniasis, stomachaches and common cold. In spite of the many years of use and the therapeutic benefits accrued, processes of prescribing a set of standards for quality assurance have not been clearly spelt out anywhere for this particular herb.

The objective of this study is to use chromatographic fingerprinting technique to develop clear and repeatable methods for testing the identity, purity and quality of *W. ugandensis* then use the methods to evaluate the quality of its products sold in the markets for therapeutic purposes. The successful completion of this study will form the basis for establishing a herbal monograph for *W. ugandensis* in Kenya. The *W. ugandensis* cultivated in Kenyatta University Medicinal Research Garden by good agricultural practices will be used as a standard. More samples will be obtained from five different agroecological zones in Kenya. Samples of products claimed to contain *W. ugandensis* will be obtained from herbal shops in Nairobi then analyzed using the methods established. Data will be analyzed and presented in graphs, tables and figures.