

## Research Fellows and Research Projects

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

**RESEARCH FOCUS AREA:** Food Security / Traditional Medicine /Biodiversity / Environment etc.

### Researcher in Action



### Community engagement



**Full Name:** Henry Okwudili, Udeh

**Country of Research:** South Africa

**Research Topic:** The effect of malting on the availability and bioaccessibility of selected bioactive components of finger millet grain and its use as malt based non-alcoholic beverage.

**Institutional Affiliation:** University of Venda

**Research Supervisor:** Prof. A.I.O. Jideani

### Research Background/Summary

Finger millet (*Eleusine coracana*) is among minor cereal grains that are underutilized, owing to their minimal inclusion in the commercial food system, presumed nutritional insignificance, lack of research and applicability in novel product development processes. Recent trials with finger millet extracts have shown several medicinal effects which have been attributed to certain

bioactive compounds contained in the grain. South Africa and most African countries are experiencing a burden of diseases especially diabetes, cardiovascular diseases and cancer, and their progression is still on the increase owing to lifestyle disorders and increasing poverty rates. Finger millet is extensively used in preparation of various traditional foods and beverages, and as a medicinal plant. However, in South Africa, there are no documented uses of the grain. Locally known as *muphoo* in Venda South Africa, the grain is solely grown at subsistence level by middle-aged and older women, and is said to be consumed by economically disadvantaged households. Thus, this study attempts to evaluate selected bioactive compounds of the grain and their absorbable fractions as affected by malting process and to test its applicability in production of a non-alcoholic beverage; which could encourage its cultivation by local farmers and afford its consumers potential health benefits.

Outstanding research highlight: Review manuscript titled "Finger millet (*Eleusine coracana*) bioactives, bioaccessibility and bioactivity" from the research project, has been submitted for consideration for publication in Trends in Food Science and Technology Journal. Kindly find attached proof.

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