Exploiting the Nutritional and Antioxidant Potential of the Baobab

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The baobab (Adansonia digitata L.) is one of the most important indigenous fruit trees in Africa. Various parts of the tree traditionally serve to supplement rural diets mainly during lean seasons as well as to generate cash income. The fruit pulp is of high nutritional value, has pre-biotic and antioxidant functions and high dietary fibre contents. In recent years, global demand for baobab pulp has been increasing following the acceptance of baobab fruit pulp as novel food in the EU and the US markets. The baobab tree tends to exist in mostly arid and semi-arid rural areas of sub Saharan Africa vulnerable to climate change. The presentation will describe the nutritional and antioxidants compounds in baobab pulp their quantities as well as their distribution across different agroecological zones using High Performance Thin Layer Chromatography coupled with High Resolution Mass Spectroscopy (HPTLC-HR-ESI-MS) and densitometry. The compounds according highest capacity were identified as epicatechin-O-gallate, procyanidin, ascorbic acid as diketogulonic acid, and their distribution in baobab samples is influenced by origin, thus climatic conditions as well as intrinsic tree characteristics. This information adds to the body of knowledge on the nutritional and pharmacological property of the baobab pulp. The presentation will also discuss on the formulation and analyses of the physical, nutritional and sensory attributes of a baobab based ready-to-eat snack bar. In addition, the presentation will discuss some of the research gaps and potential areas of collaboration involving the baobab.