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LEAD BIOACTIVE COMPOUNDS MINING FROM TROPICAL FOOD AND MEDICINAL PLANTS UTILIZING GC/MS TECHNIQUES

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Many tropical plant species are useful as foods and as medicines, the study of these species for lead bioactive compounds discovery and conservation is imperative because of their existential frailty; dual use in a society of high poverty and little or no structured and formal primary health care. Lead bioactive compounds discovery from natural products has been the unrelenting quest of phytochemists, biologists, chemists and related discipline researchers. Studies with gas chromatography/ mass spectrometry (GC/MS) on ethanol and steam extracts of *Dioscorea* species' leaves and roots has been done on a plant considered to be orphan due to paucity of developmental research. *Dioscorea* species are staple foods to millions of people and popular as herbal remedies for diverse fertility issues. *Garcinia kola (Gk)*, a masticatory with wide range of powerful antimicrobial and antiviral principles and *Aframomum melegueta (Am)* seeds, a popular spice and wide spectrum antibacterial agent has shown evidence of novel lead bioactive compounds hitherto unknown in the species after extracts subjected to GC/MS. Major terpenoids were detected and reported from *Dioscorea* leaf essential oil e.g. nerolidol, citronellyl acetate, farnesol, elemol, germacrene, valerenyl acetate etc. and from Gk and Am; caryophylene, decanone, plamitic acids and squalene etc. These results show that GC/MS is an essential technique of general high value for drug discovery, especially for species used as foods and as herbal medicines.

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