## Abstract: Prof Aderogba

Phytochemical investigation of medicinal plants offers a significant opportunity to discover novel therapeutic compounds. It also provides useful leads for structural modification and synthesis of biologically active compounds with improved activity and moderate side effects.

Anthocleista vogelii (Planch) is used in folk medicine in conditions related to inflammation and oxidative stress. This suggests that some of its secondary metabolites could have the ability to reduce oxidative damage to cells and ameliorate inflammatory conditions. These are two prominent features in the brain of a person with Alzheimer's disease. Repeated column fractionation of its leaf extracts afforded a compound identified as swertisin; isovitexin-7-*O*-methyl ether (**1**). Swertisin displayed better acetylcholinesterase inhibitory activity with IC<sub>50</sub> of 32.09  $\mu$ g/mL than physostigmine (eserine) with IC<sub>50</sub> of 56.09  $\mu$ g/mL used as a standard.

*Ecklonia maxima* (Osbeck) Papenfuss, a brown alga, grows abundantly on the west coast of South Africa, and is used to produce animal feed and nutritional supplements. Purification of its ethyl acetate fraction resulted in isolation of a compound identified as dibenzo [1,4] dioxine-2,4,7,9-tetraol (2). The isolated compound exhibited moderate acetylcholinesterase inhibitory activity. This activity by compound (1) suggests that it could be useful in the management of Alzheimer's.