

3rd International Summit on **TOXICOLOGY & Applied Pharmacology**

October 20-22, 2014 DoubleTree by Hilton Hotel Chicago-North Shore, USA

Studies on the effects of dietary exposure of Moringa oleifera Lam. leaves on insulin metabolism in rabbits

Chinwe Christy Isitua^{1,2} and Ibeh Isaiah Nnanna³
¹Universidad Tecnica de Machala, Ecuador
²Afe Babalola University, Nigeria
³University of Benin, Nigeria

Plant based products had primarily served from time immemorial as the most important and indispensable source of food. Plant drugs popularly known as herbal remedies are relied upon for the treatment of all sorts of diseases in most communities in developing countries. The effect of the dietary exposure of *Moringa oleifera* Lam. leaf on insulin metabolism was carried out with a view to provide an insight into physiological events that may have bearings on diabetes. Age twelve – matched healthy adult Chinchilla rabbits (2.0±0.5 kg BW) were divided into three equal groups (two treatment and one control groups). The treatment groups were given 2.5 mL and 5.0 mL of aqueous extract of the leaves of *M. oleifera* by oral intubation, while the control group received 5.0 mL of the vehicle of extraction (sterile distilled water) and examined every 30 days period for 90 days. The quantitative determination of insulin in serum was carried out using DRG Insulin Enzyme Immunoassay kit (DRG Insulin ELISA EIA - 2935). Results showed significant increases in blood insulin level of test rabbits in all the periods examined when compared with the control and this increase was concentration-and time-dependent. This work therefore demonstrates the anti-diabetic action of *M. oleifera* leaf which has been shown to have phytochemicals that can stimulate insulin release in animals.

Biography

Chinwe Christy Isitua is a Scientist who completed her PhD in 2013 from University of Benin, Nigeria and she is currently doing her Postdoctoral studies in Universidad Tecnica de Machala Ecuador with the Emblematic Prometeo Project Fellowship of the Secretariat of Higher Education, Science, Technology and Innovation (SENESCYT) Ecuador.

christykings@yahoo.com, isituacc@abuad.edu.ng