

**Title: Modulatory effects of *Azadirachta indica* leaf on haematology, biochemical and organ-system functions of streptozotocin-induced diabetic rats**

**Name:** Ezeigwe Obiajulu Christian

**Affiliation:** Department of Applied Biochemistry, Faculty of Biosciences, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.

**Country:** Nigeria.

Email Id: [oc.ezeigwe@unizik.edu.ng](mailto:oc.ezeigwe@unizik.edu.ng)

This study was carried out to evaluate the effects of ethanol extract of *Azadirachta indica* leaf on some essential haematological, biochemical and organ-system function parameters of streptozotocin-induced diabetic rats. Diabetes was induced by a single intraperitoneal administration of streptozotocin (50 mg/kg bodyweight.). The haematological parameters, lipid profile and histopathological investigations were performed using standard methods. Daily administration of ethanol extract of *A. indica* leaf for a period of four weeks significantly ( $p < 0.05$ ) increased the body weight of the streptozotocin-induced diabetic rats compared with the diabetic-untreated control. There was a significant ( $p < 0.05$ ) increase in the haemoglobin concentration, packed cell volume, red blood cells, and platelet count and a significant ( $p < 0.05$ ) reduction in the total serum cholesterol, low-density lipoprotein, triglycerides and very-low-density lipoprotein of the groups treated with ethanol extract of *A. indica* compared with the diabetic-untreated control. The result of the histopathological studies showed regeneration of the organs for the groups treated with 400 mg/kg bw of the extract compared with the diabetic-untreated control. These results suggest that the ethanol extract of *A. indica* can be considered as an excellent remedy for diabetes and an alternative to antidiabetic drugs in reducing the complications associated with type II diabetes mellitus.

**Presenter Name:** Ezeigwe, Obiajulu Christian

**Mode of Presentation:** Oral/Powerpoint.

**Contact number:** +2347034432437

## **BIOGRAPHY**

Ezeigwe, Obiajulu Christian completed his PHD at the age of 33 years from Nnamdi Azikiwe University, Nigeria. He specialized in Pharmacology and Medical Biochemistry. He is the Chairperson of the Animal Research Ethics Committee-Nnamdi Azikiwe University, Nigeria. He has over 60 publications and his publication h-index is 8. He has been serving meritoriously as a reviewer in several reputed journals.