Antidiabetic activity of Elephant grass (*Cenchrus purpureus* (Schumach.) Morrone) via activation of PI3K/AkT signaling pathway, oxidative stress inhibition, and apoptosis in Wistar rats

Oluwafemi Adeleke Ojo^{1*}, Abosede Itunuoluwa Oni¹, Susan Grant¹, Jennifer Amanze¹, Adebola Busola Ojo², Odunayo Anthonia Taiwo³, Rodelwma Fibilis Maimako¹, Ikponmwosa Owen Evbuomwan⁴, Matthew Iyobhebhe¹, Charles Obiora Nwonuma¹, Omorefosa Osemwegie⁴, Anthonia Oluyemi Agboola⁵, Christopher Akintayo⁶ Nnaemeka Tobechukwu Asogwa⁷, Nada H. Aljarba⁸, Saad Alkahtani⁹, Gomaa Mostafa-Hedeab¹⁰ Gaber El-Saber Batiha¹¹, Oluyomi Stephen Adeyemi¹

- ¹Department of Biochemistry, Landmark University, PMB 1001, Omu-Aran, Nigeria
- ² Department of Biochemistry, Ekiti State University, Ado-Ekiti, Nigeria
- ³ Department of Biochemistry, Chrisland University, Abeokuta, Nigeria
- ⁴ Department of Microbiology, Landmark University, PMB 1001, Omu-Aran, Nigeria
- ⁵ Department of Biochemistry, Wesley University, Ondo, Nigeria
- ⁶ Department of Physiology, Afe Babalola University, Ado-Ekiti, Nigeria
- ⁷ Central Research Laboratory 123B, University Road, Tanke Ilorin, Nigeria
- ⁸ Department of Biology, College of Science, Princess Nourah bint Abdulrahman University, Riyadh 11671, Saudi Arabia
- ⁹ Department of Zoology, College of Science, King Saud University, Riyadh, Saudi Arabia
- ¹⁰ Department of Pharmacology and Health Research Unit, Jouf University, Saudi Arabia
- ¹¹ Department of Pharmacology and Therapeutics, Faculty of Veterinary Medicine, Damanhour University, Damanhour, AlBeheira 22511, Egypt.

*Corresponding author address: <u>oluwafemiadeleke08@gmail.com;</u> Tel: +2347037824647



Figure S1: HPLC chromatogram of AECPS. Rutin (peak 1), ellagic acid (peak 2), 3-O-rutinoside (peak 3), catechin (peak 4) and kaempferol (peak 5).

Legend: AECPS: aqueous extract of Cenchrus purpureus shoots