**ABSTRACT**

This experiment was conducted to test the hypoglycemic effects of *C. pulcherrima* crude leaf extract on the blood glucose level of albino rats. The rats were injected with alloxan to induce hyperlgycemia in which the three (3) groups acquired a mean of 248.4mg/dL. Different doses of plant powder extract were chosen to see which among them would have the highest significant effect on the blood glucose level of albino rats. The groups were all administered with treatment, different doses of ethanolic leaf extract of C. pulcherrima: T0- Standard (Glibenclamide 10mg/kg), T1 – 100 mg/kg leaf crude extract of C. pulcherrima, T2- 200 mg/kg leaf crude extract of C. pulcherrima. Which showed that both 100mg/kg leaf crude extract of *C. pulcherrima* (T1) and 200mg/kg leaf crude extract of *C. pulcherrima* (T2) are both equipotent with Glibenclamide that has already been proven effective against hyperglycemia. After which, the pancreas was removed after euthanizing the animal to check the results on the pancreatic histology that showed hyperproliferation of B-cells. The statistical analysis used was paired T-test that determined the difference on the blood sugar level before the administration of alloxan monohydrate and administration of crude leaf extracts.

*Key words: Caesalpinia pulcherrima, pancreas, histology, hyperglycemia, hypoglycemia*