COMPARATIVE STUDY ON THE HYPOGLYCEMIC EFFECTS OF *Persea americana* var. *russell* (AVOCADO) AND *Musa paradisiaca* var. *latundan* (BANANA) FRUIT MIXTURES ON THE BLOOD GLUCOSELEVEL OF TYPE I DIABETES MELLITUS-INDUCED RATS

Un Undergraduate Research Presented to
the Biological Sciences Department
College of Science and Computer Studies
De La Salle University - Dasmariñas
Dasmariñas City

In Partial Fulfillment of the Requirements
for the degree of Bachelor of Science in Human Biology

LIEZEL I. SALUD

MICHELLE KAREN A. UY

March 2014

ABSTRACT

This study compared the hypoglycemic effects of *Persea americana var. russell* and *Musa paradisiaca var.* latundan on the blood glucose level of Type I Diabetes Mellitus-Induced Rats. Induction of diabetes was done through intraperitoneal administration of alloxan drug. Researchers prepared 50% of avocado and banana fruit mixtures. Gavage method was used to introduce the treatments on the rats as the positive control treatments were done for five weeks. After treatment, representatives of each treatment group were drawn blood for the final blood glucose reading. Results showed hypoglycemic activity of the 50% avocado fruit mixture was effective. All of the mixtures caused a general negative effect on the body weight. In conclusion, *Persea americana* (avocado) proved to be more effective than *Musa paradisiaca* (banana) on lowering the blood glucose level.

ACKNOWLEDGEMENT

The researchers wish to express their utmost gratitude and appreciation to the following:

Ms. Cherry Z. Cuevas, the researchers' adviser, for her unwavering guidance and support and for her willing and intelligent sharing her knowledge to provide pertinent data needed for this research undertaking;

Dr. Johnny A. Ching, Ms. Airill L. Mercurio, and Ms. Melanie P. Medecilo, the members of the Thesis Review Panel, for their brilliant suggestion and substantive recommendations that truly guided the researchers from the proposal stage up to the completion phase of the paper;

Dr. Albert H. Baron, the researchers' veterinary doctor, for his very knowledgeable advice and practices that were taught in handling the laboratory rats;

Bryan, Vincent, Archie, Herschel, Chona, Gio, Desiree, Gwen, Rughen, Michael, Benny, Jansen, and the rest of our dear friends, who readily shared relevant information and helped in the handling of the rats and for always giving a helping hand.

The researchers' family, Nicasio, Leonora, Hazel, Mark Jayson, Edgar, Theresa, Kristel, Gleezell, for their financial support and words of encouragement.

And most of all, to the Almighty God who is the ultimate source of life and wisdom.

TABLE OF CONTENTS