



**EFFECT OF *Delonix regia* BOJ ex. HOOK. RAF (FLAME TREE) LEAF  
AND BARK EXTRACTS ON THE BLOOD CHOLESTEROL LEVEL OF  
THE *Mus musculus* (ALBINO MICE)**

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

In Partial Fulfilment of the Requirements for the Degree  
Bachelor of Science in Medical Biology

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March 2015



### ABSTRACT

This study aimed to determine the effects of *Delonix regia* leaf and bark extract to the blood cholesterol level of albino mice. Each of the albino mice was given 5g butter/meal twice a day incorporated to their regular pellet diet. This served as high-fat diet. After two weeks, hypercholesterolemia ( $p=0.0187$ ) was achieved and this was determined by the use of Easy Touch GCU Cholesterol meter. The high cholesterol level of albino mice was treated with 100% leaf and bark extracts that was obtained through rotary vacuum evaporation and was induced to the mice using gavage method with the assistance of a licensed veterinarian. Results showed that the *D. regia* leaf extract significantly reduced ( $p=0.0085$ ) the blood cholesterol of albino mice that may be due to the presence of phytochemical constituents such as terpenoids, tannins, saponins, glycoside, afzelin, flavonoids, and sterol that has free-radical scavenging property and inhibitory activity for lipid absorption. This is in contrary to the bark extract that insignificantly increased ( $p=0.1505$ ) the blood cholesterol level of albino mice that may be due to the presence of Myristic acid, a fatty acid that increases high-density lipoprotein (HDL) and less-dense lipoprotein (LDL) level.



## ACKNOWLEDGEMENTS

We thank all who in one way or another contributed in the completion of this research. First, we give thanks to God for protection, knowledge, patience, and strength to do work.

We would like to express our deepest gratitude to our adviser, Jonnacar S. San Sebastian, for her guidance and patience in doing this research.

Besides our adviser, we would also like to thank the members of the review panel, Ms. Chona T. Bandelaria, Ms. Myra N. Lagat and Dr. Airill L. Mercurio, for their encouragements and insightful comments.

Also we are thankful for our fellow students especially Claudine Naz who became the third person in doing this research. We are thankful for the challenges and productive critics.

Last but not the least, we would like to thank our family for the never ending support in doing this research and also for the financial support.

May the Almighty God Bless us all.



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