EVALUATION OF ANGIOSUPPRESSIVE ACTIVITY OF *Pleurotus florida* ON DEVELOPING CHICK EMBRYO USING CHORIOALLANTOIC MEMBRANE ASSAY

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An Undergraduate Thesis Submitted to the Faculty of the Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines
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for the Degree

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(Major in Zoology)

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ACCEPTANCE SHEET

This undergraduate thesis entitled "**EVALUATION OF ANGIOSUPPRESSIVE ACTIVITY OF *Pleurotus florida* ON DEVELOPING CHICK EMBRYO USING CHORIOALLANTOIC MEMBRANE ASSAY**" prepared and submitted by **RODENE C. ZACARIAS**, in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN BIOLOGY (ZOOLOGY)**, is hereby accepted.

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BIOGRAPHICAL SKETCH

The author of this paper named Rodene Cabantac Zacarias, was a son of Mr. Rogelio Sison Zacarias Jr. and Mrs. Eden Cabantac Zacarias who hails at Purok 2, Brgy. Tomana East, Rosales, Pangasinan. He was 20-year-old student who celebrates his birthday every 1st day of September. His first educational milestone was at their barangay day care center where he spent his toddler years and began his journey as Kindergarten pupil at Rosales Christian Learning Center (RCLC), Rosales, Pangasinan wherein he graduated as an Outstanding Pupil. Eventually his parents sent him to IFI – Christian Home and Institute of Learning and Development (CHILD), Rosales Pangasinan for his elementary years and achieved the third highest honor during his graduation. He then continued his secondary years at Rosales National High School. By his time, he was honored to be one of the students belonging to the first batch of Special Science Class. During their commencement exercises, he was grateful because he reached his goal, to become one of those person standing and speaking in front of many people and proudly says he is their class Salutatorian. Before entering college, he was able to finish the TESDA Accredited Computer Literacy Program of AIE Colleges at Urdaneta City, Pangasinan. Now, he is currently finishing his baccalaureate degree in Biology major in Zoology at Central Luzon State University, Science City of Muñoz, Nueva Ecija.

During his college years he had been part of the following seminars and training: Symposiums of CLSU-Department of Biological Sciences with the themes "Current Trends in Food Safety and Quality Assurance", HIV: AIDS "Survival of the Fittest. The Human Culture Media", "Philippine Biodiversity and National Museum", "Role of Biologists in the Environmental Impact Assessment and Management Projects", "Bio-

negosyo" and seminar of the Research, Extension, and Training Office entitled "Seminar on Global Trends in Biotechnology: Globalizing Biotechnology Initiatives in CLSU", and "Healthy Eating, Active Living: Sharing Best Practices of Nutrition Education in the Community". He was also attended the 10th Go Negosyo Filipina Entrepreneurship Summit 2018 at the World Trade Center, Pasay City. Moreover, his leadership skills were also shaped perfectly as he was a former, CAS Central Council Biology Representative during A.Y. 2016-2017 and currently he is the Secretary of the Biology Supreme Student Council.

His main goal as of today is to finish his college degree and eventually further expand his knowledge in Medicine for him to become a successful medical doctor. He want to become a cardiologist because his family in both sides has a history of heart diseases. In order for this dream to be a successful one, he must work and study well. Because he know that education is the key to all success in life and believes that this is only the wealth that cannot be stolen by anyone. Lastly, he will be an obedient son of his parents because they are the one who sacrifices and who supports him all through his journey in schooling.

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ABSTRACT

ZACARIAS, RODENE C., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2018, EVALUATION OF ANGIOSUPPRESSIVE ACTIVITY OF *Pleurotus florida* ON DEVELOPING CHICK EMBRYO USING CHORIOALLANTOIC MEMBRANE ASSAY**

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Angiogenesis is the proliferation of new blood vessels that promote normal embryonic development and numerous pathologies like tumor growth and cancer metastasis. The assays were used for both pro and anti-angiogenic agents. This study evaluated the angio-suppressive activity of *Pleurotus florida* on the developing chick embryo using chorioallantoic membrane (CAM) assay and used destructive sampling into four different treatment concentrations and a control. The result revealed that there is a decrease on the number of blood vessels formed after 24 hours, 48 hours, and 72 hours at a higher treatment concentrations. Statistical analysis showed that the 24 hours and 48 hours of exposure to various concentration have no significant difference. Nevertheless, after 72 hours of exposure, the mean blood vessels formed showed a significant difference among the treatment means between the highest concentration of *P. florida* (1%) and the control treatment (sterile water). In terms of the percentage angio-suppressive activity of *P. florida* with the greatest angiogenic effect which was the 1% *P. florida* treatment concentration possesses 35.63% and 38.65% angio-suppressive rate after 48 hours and 72 hours of exposure respectively. Thus, the study showed that *Pleurotus florida* lyophilized hot water extract exhibits angio-suppressive activity on the developing chick embryo using chorioallantoic membrane assay and is concentration and time exposure dependent.

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