ANTI-INFLAMMATORY AND ANTI-DIABETIC ACTIVITIES OF ETHANOL EXTRACT OF *Polyporus grammocephalus* MYCELIA AND CULTURE SPENT

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF APPENDIX TABLES

LIST OF APPENDIX FIGURES

ABSTRACT

ORTEGA, JOHN ARTHUR A., Department of Biological Sciences, Colleges of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, ANTI-INFLAMMATORY AND ANTI DIABETIC ACTIVITIES OF ETHANOL EXTRACT OF *Polyporus grammocephalus* MYCELIA AND CULTURE SPENT**

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Polyporus grammocephalus is a wild wood-rotting basidiomycoetous fungus that commonly found growing on fallen logs. This study evaluated the anti-inflammatory and anti-diabetic activities of ethanol extract of mycelia and culture spent of *P. grammocephalus* using chorioallantoic membrane (CAM) irritance assay and α-amylase inhibitory assay, respectively. Among extract concentrations, 1000 µg/mL of culture spent (90.48) and mycelia (88.90%) recorded the highest inflammation inhibitions, which were significantly comparable to 500 µg/mL of both extracts. Moreover, 1000 µg/mL concentration of both mycelia and culture spent extract recorded the highest α-amylase inhibitory activity of 16.07% and 13.39%, respectively. Mycelia and culture spent of *P. grammocephalus* could be promising sources of anti-inflammatory and anti-diabetic agents.

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