

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

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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 grammacephalus* MYCELIA AND CULTURE SPENT**

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Polyporus grammacephalus is a wild wood-rotting basidiomycetous 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. grammacephalus* using chorioallantoic membrane (CAM) irritation assay and α -amylase inhibitory assay, respectively. Among extract concentrations, 1000 $\mu\text{g/mL}$ of culture spent (90.48) and mycelia (88.90%) recorded the highest inflammation inhibitions, which were significantly comparable to 500 $\mu\text{g/mL}$ of both extracts. Moreover, 1000 $\mu\text{g/mL}$ 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. grammacephalus* could be promising sources of anti-inflammatory and anti-diabetic agents.

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