



A Status Review of the Bioactive Activities of Tiger Milk Mushroom *Lignosus rhinocerotis* (Cooke) Ryvarden

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Edible and medicinal mushrooms are regularly used in natural medicines and home remedies since antiquity for ailments like fever, inflammation, and respiratory disorders. *Lignosus rhinocerotis* (Cooke) Ryvarden is a polypore found in Malaysia and other regions in South East Asia. It can be located on a spot where a tigress drips milk while feeding, hence the name “tiger’s milk mushroom.” The sclerotium of *L. rhinocerotis* is highly sought after by the native communities in Malaysia to stave off hunger, relieve cough and asthma, and provide stamina. The genomic features of *L. rhinocerotis* have been described. The pharmacological and toxicity effects, if any, of *L. rhinocerotis* sclerotium have been scientifically verified in recent years. In this review, the validated investigations including the cognitive function, neuroprotection, immune modulation, anti-asthmatic, anti-coagulation, anti-inflammatory, anti-microbial/ anti-viral, anti-obesity, anti-cancer/ anti-tumor, and antioxidant properties are highlighted. These findings suggest that *L. rhinocerotis* can be considered as an alternative and natural medicine in the management of non-communicable diseases. However, there is a paucity of validation studies including human clinical trials of the mycochemicals of *L. rhinocerotis*.

Keywords: *Lignosus rhinocerotis*, medicinal mushroom, sclerotium, medicinal properties, neuroprotection, antioxidant, ethnomedicine, mycomedicine

INTRODUCTION

Medicinal mushrooms have been valued and used since ancient times by the Chinese, Korean, Japanese, Egyptians, and European communities. They are valued not only for the culinary purposes but also for their nutritional and medicinal values (Manzi et al., 1999). The greatest attribute of mushrooms, besides their taste, is their peculiar healing properties. Recently, ethnomycological knowledge of medicinal mushrooms for their curative properties is being tapped. *Lignosus rhinocerotis* (Cooke) Ryvarden, belonging to the Polyporaceae family is regarded as a rare and valuable traditional medicine and it can only be located in a certain geographic regions encompassing South China, Thailand, Malaysia, Indonesia, Philippines, Papua New Guinea, New Zealand, and Australia (Lai et al., 2011; Figure 1).