UNIVERSITI TEKNOLOGI MARA

PRELIMINARY STUDY ON ANTIFUNGAL PROPERTIES OF *Hibiscus rosa-sinensis* LEAVE EXTRACT VIA *IN VITRO* APPROACH

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ABSTRACT

PRELIMINARY STUDY ON ANTIFUNGAL PROPERTIES OF *Hibiscus rosa-sinensis* LEAVE EXTRACT VIA *IN VITRO* APPROACH

Skin disorder can cause a significant discomfort which can affect ones confidence level and maintenance costs. Study on natural resources has become popular recently as the available treatments are unable to prevent the reoccurrence of these skin disorders and have certain limitations. *Hibiscus rosa-sinensis* is a genus of flowering plant in the mallow family known as *Malvaceae*. Various parts of *Hibiscus rosa-sinensis* posses' significant medicinal effects based on research done all over the world. The aim of this study was to evaluate the antifungal properties of *Hibiscus rosa-sinensis* aqueous and ethanolic leave extract against *Malassezia furfur* and *Malassezia pachydermatis* via in vitro approach. The agar-well diffusion method was used to assess the antifungal activity of the extracts. Ketoconazole 16µg/µl was used as standard references. The results demonstrated that both aqueous and ethanolic leave extract of *Hibiscus rosa-sinensis* with concentration of 0.1g/ml, 1g/ml, 5g/ml, and 10g/ml did not possesses inhibitory activity against *M.furfur* and *M.pachydermatis* as compared to standard reference. The reported observation suggests that aqueous and ethanolic leave extract of *Hibiscus rosa-sinensis* does not exert antifungal properties against *M.furfur* and *M.pachydermatis*.

CHAPTER ONE

INTRODUCTION

1.1 Background

1.1.1 *Hibiscus rosa-sinensis*

Hibiscus rosa-sinensis from the family of *Malvaceae* is a glabrous shrubs generally cultivated in the tropical country as decorative plant. This native of Southeastern Asia specifically in China comes in different forms with variety flower colors yet lack of any scent. The flowers are large, generally red in the original varieties, and firm with leaf that is wide at the base and coarsely toothed at the apex resembling an oval shape.

Hibiscus rosa-sinensis is believed to have a key role in the expanding area of health supplements especially herbal preparations and medicines in daily self-care and in health care system managed by professionals in near future (Jadhav et al., 2009). Various parts of *Hibiscus rosa-sinensis* posses' significant medicinal effects based on research done all over the world. The aqueous root extract of *Hibiscus rosa-sinensis* is proven to have antipyretic and analgesic effects (Soni & Gupta, 2011).