

Novel Medicinal Property of Plants: The Hidden Treasures

Gam LH*

Gam Lay-Harn, School of Pharmaceutical Sciences, Universiti Sains, Malaysia



***Corresponding author:** Gam LH,
Department of Pharmaceutical Sciences,
Malaysia

Submission:  June 10, 2021

Published:  June 28, 2021

Volume 8 - Issue 2

How to cite this article: Gam LH. Novel Medicinal Property of Plants: The Hidden Treasures. *Nov Res Sci.* 8(2). NRS. 000681. 2021.
DOI: [10.31031/NRS.2021.08.000681](https://doi.org/10.31031/NRS.2021.08.000681)

Copyright@ Gam LH, This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use and redistribution provided that the original author and source are credited.

Introduction

Plant and its components, especially the leaves, has been used as the source of fiber and minerals in our daily diet. In addition, plant has also been used traditionally for its medicinal properties. Many of the current modern medicines are the derivatives of chemicals originated from plant. The use of plant for curing diseases has been quoted in the Bible, where the leaves of the plant bring healings to the nation was stated. Therefore, the hidden treasures contained in plant is worth exploring for the betterment of mankind's health.

Traditional medicine has continuously played an important role in medicine. In developing countries, 70-95% of the population depend on traditional use of medicinal plants as primary source of medicines [1]. In developed countries, 70-90% of the population use traditional medicinal plants as complementary and alternative medicines [2]. Herbal medicine is referred to as herb, it comprises of herbal materials, herbal preparations and finished herbal products that contain active ingredients of plants [2]. Herbal medicines are commonly used for prevention or diseases treatment or as health care supplements since thousands of years ago. Nevertheless, herbal medicine is not fully safe for consumption, adverse effects on safety and efficacy of herbal medicine usage have been reported [2,3]. Due to the reason that herbal medicine has been used traditionally, many assume that all plant-based medicines are safe, ignoring the fact that some medicinal plants inherited toxins [3]. Other problems associated with the use of herbal medicines include consumption of wrong species of medicinal plants, inappropriate use of herbal medicines and the use of contaminated of herbal medicines that contained toxic metals, agrochemical residues and pathogens [3]. In order to combat these issues, The World Health Organization (WHO) has developed a series of guidelines to monitor the safety, efficacy and quality of herbal medicines [2-4]. In addition, a series of monographs on medicinal plants have been published by WHO to provide scientific information on the safety, efficacy and quality of the widely used medicinal plants. Nevertheless, there are much need to be done in view of the unlimited values of plants' medicinal properties.

In modern medicines, a large number of the bioactive compounds are derived from plants to name a few; quinine and artemisinin as antimalarial drugs; vinblastine, vincristine, paclitaxel and camptothecin as anticancer drugs; galantamine for Alzheimer's disease; L-dopa and apomorphine for Parkinson's diseases [5,6]. The use of plant not only limited to its small molecular compounds, its protein-based compounds have also been used, bromelain from pineapple extract contains proteolytic enzymes, it is available commercially as an oral drug for treatment of inflammation, blood-coagulation related and malignant diseases [7]. Sweet-tasting proteins, namely thaumatin and miraculin are used as a taste masking agent, low calorie sweetener and flavor enhancer [8].

Plant has been an important subject of pharmaceuticals scientific research. In the author's home country, Malaysia, a tropical country, has been reported to host over 6000

species of plants [9]. Although some of these plants have long been used for medicinal purposes, knowledge on their usages is not well documented and it is usually passed down orally and committed to memory. The lack of proper research and documentation of traditional medicinal plants has led to the misuse of many valuable medicinal plants. Therefore, the author foresees a more intensive and systematic documentation on the traditional usages, and the scientific findings of the medicinal plants will be beneficial to mankind, especially in view that there are many diseases known to man that still lack of effective cure, and the answers may lie in the medicinal property of the unexplored plants.

References

1. Robinson MM, Zhang X (2011) The world medicines situation 2011. Traditional medicines: global situation, issues and challenges. WHO, Geneva, Switzerland.
2. WHO (2002) WHO traditional medicine strategy 2002-2005. Geneva, WHO.
3. WHO (2004) WHO guidelines on safety monitoring of herbal medicines in pharmacovigilance systems. Geneva, WHO.
4. WHO (2007) WHO guidelines on assessing safety and quality of herbal medicines with reference to contaminants and residues. Geneva: WHO.
5. Cragg GM, Newman DJ (2005) Plants as a source of anti-cancer agents. *Journal of Ethnopharmacology* 100(1-2): 72-79.
6. Saklani A, Kutty SK (2008) Plant-derived compounds in clinical trials. *Drug Discovery Today* 13(3-4): 161-171.
7. Maurer HR (2001) Bromelain: biochemistry, pharmacology and medical use. *Cellular and Molecular Life Sciences* 58(9): 1234-1245.
8. Sun HJ, Kataoka H, Yano M, Ezura H (2007) Genetically stable expression of functional miraculin, a new type of alternative sweetener, in transgenic tomato plants. *Plant Biotechnology Journal* 5(6): 768-777.
9. Zakaria M, Mohd MA (2015) Traditional Malay medicinal plants. Kuala Lumpur: Institut Terjemahan Negara Malaysia Berhad.

For possible submissions Click below:

[Submit Article](#)