

Activity of *Phyllanthus urinaria* against Herpes through deactivation of Herpes Simplex virus Type II Protease (1AT3)

Priyadarshini Pradhan¹, Pratibharani Deep²

¹180705180108@cutm.ac.in

²pratibharani.deep@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Phyllanthus urinaria* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Herpes Simplex virus Type II Protease (1AT3) enzyme. It was found that Tangeretin and Ursolic acid helped to prevent Herpes.

Introduction: *Phyllanthus urinaria* is known for its medicinal activities. It is used in folk medicine as a cure to treat jaundice, herpes, diabetes, malaria, and liver diseases.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Malpighiales
Family	Phyllanthaceae
Genus	<i>Phyllanthus</i>
Species	<i>urinaria</i>

Major phytochemicals present in the plant are:

- a. Tangeretin
- b. Ursolic acid
- c. Limonene
- d. Naringin

One of the major enzymes required for the survival of the organism causing Herpes is Herpes Simplex virus Type II Protease (1AT3) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.