

## Activity of *Aglai odorata* against Herpes through deactivation of Herpes Simplex virus type 1 DNA polymerase (2GV9)

Krishna Subedita Jena<sup>1</sup>, Debashish Tripathy<sup>2</sup>

<sup>1</sup>180705180026@cutm.ac.in

<sup>2</sup>debashish.tripathy@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

**Abstract:** An in-silico study was performed to determine the activity of *Aglai odorata* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Herpes Simplex virus type 1 DNA polymerase (2GV9) enzyme. It was found that Myricetin helped to prevent Herpes.

**Introduction:** *Aglai odorata* is known for its medicinal activities. *Aglai* species are used in traditional medicine: leaves to treat wounds, fever, headache, asthma, jaundice, and as a tonic e.g. after childbirth; flowers against fever, asthma, jaundice and herpes.

The plant is classified as follows:

Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Sapindales
Family	Meliaceae
Genus	<i>Aglai</i>
Species	<i>odorata</i>

Major phytochemicals present in the plant are:

- a. Morphine
- b. Myricetin
- c. Peonidin
- d. Benzyl isothiocyanate

One of the major enzymes required for the survival of the organism causing Herpes is Herpes Simplex virus type 1 DNA polymerase (2GV9) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.