

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

Kumarika Mishra<sup>1</sup>, Gyanranjan Mahalik<sup>2</sup>

<sup>1</sup>180705180058@cutm.ac.in

<sup>2</sup>gyanranjan.mahalik@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

**Abstract:** An in-silico study was performed to determine the activity of *Plantago major* 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 Daidzein and Gallic acid helped to prevent Herpes.

**Introduction:** *Plantago major* is known for its medicinal activities. *Plantago major* is used in wound healing and the leaves were used as a remedy of wounds and herpes.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Lamiales
Family	Plantaginaceae
Genus	<i>Plantago</i>
Species	<i>major</i>

Major phytochemicals present in the plant are:

- a. Genistein
- b. Daidzein
- c. Gallic acid
- d. Ellagic acid

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.