

Activity of *Pinus massoniana* against Herpes through deactivation of Herpes Simplex virus type 1 DNA polymerase (2GV9)

Elina Sahoo¹, Dojalisa Sahu²

¹180705180057@cutm.ac.in

²dojalisa.sahu@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Pinus massoniana* 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 Genistein helped to prevent Herpes.

Introduction: *Pinus massoniana* is known for its medicinal activities. The chopped or decocted leaves are used in the treatment of rheumatism, herpes and intestinal parasites.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Pinopsida
Order	Pinales
Family	Pinaceae
Genus	<i>Pinus</i>
Species	<i>massoniana</i>

Major phytochemicals present in the plant are:

- Genistein
- Daidzein
- Peonidin
- Quercetin

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.