

Activity of *Bauhinia variegata* against Herpes through deactivation of Thymidine Kinase of Herpes Simplex virus (1KIM)

Shubham Pradhan¹, Debanjana Saha²

¹shubham9668518446@gmail.com

²deepanjana.saha@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Bauhinia variegata* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Thymidine Kinase of Herpes Simplex virus (1KIM) enzyme. It was found that Lutein helped to prevent Herpes.

Introduction: *Bauhinia variegata* is known for its medicinal activities. The bark decoction is used for diarrhoea control, as an astringent alternative and for treating scrofula, herpes, skin diseases and ulcers.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Equisetopsida
Order	Fabales
Family	Fabaceae
Genus	<i>Bauhinia</i>
Species	<i>variegata</i>

Major phytochemicals present in the plant are:

- Cryptoxanthin
- Carotene
- Lutein
- Lycopene

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