

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

Meenakshee Mohanty<sup>1</sup>, Debanjana Saha<sup>2</sup>

<sup>1</sup>meenakshimohanty100@gmail.com

<sup>2</sup>deepanjana.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 racemosa* 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 Sulforaphane helped to prevent Herpes.

**Introduction:** *Bauhinia racemosa* is known for its medicinal activities. *Bauhinia racemosa* leaves have been used in the treatment of asthma traditionally because of their antihistaminic action it also used to cure herpes and urethral discharges.

The plant is classified as follows:

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

Major phytochemicals present in the plant are:

- a. Sulforaphane
- b. Digoxin
- c. Rosmarinic acid
- d. Tannic acid

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.