

Activity of *Momordia charantia* against Herpes through deactivation of Herpes Simplex virus Type II Protease (1AT3)

Sanjeeb Kumar Dash¹, Yashaswi Nayak²

¹das.sanjeeb97@gmail.com

²yashaswi.nayak@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Momordia charantia* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Herpes Simplex virus Type II Protease (1AT3) enzyme. It was found that Sulforaphane helped to prevent Herpes.

Introduction: *Momordia charantia* is known for its medicinal activities. Juice of the leaves is used to treat piles and herpes.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Cucurbitales
Family	Cucurbitaceae
Genus	<i>Momordia</i>
Species	<i>charantia</i>

Major phytochemicals present in the plant are:

- Curcumin
- Ascorbic acid
- Sulforaphane
- Digoxin

One of the major enzymes required for the survival of the organism causing Herpes is Herpes Simplex virus Type II Protease (1AT3) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.