

Activity of *Moringa oleifera* against Herpes through deactivation of Thymidine Kinase of Herpes Simplex virus (1KIM)

Geetanjali Rana¹, Chinmaya Chidananda Behera²

¹geetanjalarana20@gmail.com

²chinmaya.pradhan@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Moringa oleifera* 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 Lycopene helped to prevent Herpes.

Introduction: *Moringa oleifera* is known for its medicinal activities. Various parts of this plant such as the leaves, roots, seed, bark, fruit, flowers and immature pods act as cardiac and circulatory stimulants, possess antitumor, antipyretic, antiepileptic, antiinflammatory, herpes, antiulcer, antispasmodic, diuretic, antihypertensive, cholesterol lowering.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Brassicales
Family	Moringaceae
Genus	<i>Moringa</i>
Species	<i>oleifera</i>

Major phytochemicals present in the plant are:

- Isorhamnetin
- Rosmarinic acid
- 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.