

## Activity of *Sorghum bicolor* against Herpes through deactivation of Herpes virus fusion regulator complex gH-GI (3M1C)

Sasmita Mallick<sup>1</sup>, Preetha Bhadra<sup>2</sup>

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

<sup>2</sup>preeta.bhadra@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

**Abstract:** An in-silico study was performed to determine the activity of *Sorghum bicolor* against Herpes. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Herpes virus fusion regulator complex gH-GI (3M1C) enzyme. It was found that Pelargonidin helped to prevent Herpes.

**Introduction:** *Sorghum bicolor* is known for its medicinal activities. Seed extracts are drunk to treat hepatitis and herpes.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Poales
Family	Poaceae
Genus	<i>Sorghum</i>
Species	<i>bicolor</i>

Major phytochemicals present in the plant are:

- Naringin
- Limonene
- Naringin
- Pelargonidin

One of the major enzymes required for the survival of the organism causing Herpes is Herpes virus fusion regulator complex gH-GI (3M1C) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.