

Activity of *Strobilanthus cusia* against Herpes through deactivation of Herpes virus fusion regulator complex gH-GI (3M1C)

Akshaya Kumar Sahoo¹, Preetha Bhadra²

¹sakshayakumar128@gmail.com

²preeta.bhadra@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Strobilanthus cusia* 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 Tangeretin and Catechin helped to prevent Herpes.

Introduction: *Strobilanthus cusia* is known for its medicinal activities. It is used for influenza, herpes, epidemic cerebrospinal meningitis, encephalitis B, viral pneumonia and mumps.

The plant is classified as follows:

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| Kingdom | Plantae |
| Division | Tracheophyta |
| Class | Magnoliopsida |
| Order | Lamiales |
| Family | Acanthaceae |
| Genus | <i>Strobilanthus</i> |
| Species | <i>cusia</i> |

Major phytochemicals present in the plant are:

- a. Tangeretin
- b. Salicylic acid
- c. Epicatechin
- d. Catechin

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.