

Activity of *Syzygium jambos* against Herpes through deactivation of Thymidine Kinase of Herpes Simplex virus (1KIM)

Shatabdi Das¹, Dojalisa Sahu²

¹shatabdidas19962gmail.com

²dojalisa.sahu@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

Abstract: An in-silico study was performed to determine the activity of *Syzygium jambos* 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 Ellagic acid helped to prevent Herpes.

Introduction: *Syzygium jambos* is known for its medicinal activities. A decoction of the leaves is used as a diuretic, herpes, a remedy for sore eyes and for rheumatism. The seeds are used to treat diarrhoea, dysentery, diabetes and catarrh. A decoction of bark is administered to relieve asthma and bronchitis.

The plant is classified as follows:

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Myrtales
Family	Myrtaceae
Genus	<i>Syzygium</i>
Species	<i>jambos</i>

Major phytochemicals present in the plant are:

- Ellagic acid
- Gallic acid
- Tannic acid
- Theobromine

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.