# Activity of Hypericum perforatum against Hepatitis C through deactivation of Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL)

Baidehi Mohapatra[1], Sagarika Parida[2]

[1]190705180124@cutm.ac.in

[2]sagarika.parida@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

**Abstract:** An in-silico study was performed to determine the activity of Hypericum perforatum against Hepatitis C. Molecular docking using Biovia Discovery Studio was performed to identify the phytochemical responsible to deactivate Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL) enzyme. It was found that Pelargonidin helped to prevent Hepatitis C.

**Introduction:** Hypericum perforatum is known for its medicinal activities. It is used tropically for the treatment of wounds, abrasions, burns, sunburns and inflammatory skin disorders. Its use in wound healing could be justified with its anti-inflammatory, antimicrobial and astringent effects.

The plant is classified as follows:

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|---|---|
| Kingdom | Plantae |
| Division | Tracheophyta |
| Class | Magnoliopsida |
| Order | Malpighiales |
| Family | Hypericaceae |
| Genus | Hypericum |
| Species | perforatum |

Major phytochemicals present in the plant are:

a. Pelargonidin
b. Limonene
c. Rutin
d. Azadirichtin

One of the major enzymes required for the survival of the organism causing Hepatitis C is Hepatitis C Virus RNA-Dependent RNA polymerase (5PZL) enzyme. The objective of this work is to find the phytochemical that can deactivate the enzyme, thereby preventing the physiological activity of the organism.


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