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

Sibani Panigrahi[1], Sunita Satapathy[2]

[1]190705180120@cutm.ac.in

[2]sunita.satapathy@cutm.ac.in

Centurion University of Technology and Management, Odisha, India

**Abstract:** An in-silico study was performed to determine the activity of Agrimonia eupatoria 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 Ferulic acid helped to prevent Hepatitis C.

**Introduction:** Agrimonia eupatoria is known for its medicinal activities. It is used as a folk remedy for asthma, bronchitis, dermatitis, entorrhagia, enuresis, gastrorrhagia, hematuria, hepatosis, metrorrhagia and neuralgia.

The plant is classified as follows:

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|---|---|
| Kingdom | Plantae |
| Division | Tracheophyta |
| Class | Magnoliopsida |
| Order | Rosales |
| Family | Rosaceae |
| Genus | Agrimonia |
| Species | eupatoria |

Major phytochemicals present in the plant are:

a. Resveratrol
b. Phenyl isothiocyanate
c. Rutin
d. Ferulic acid

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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