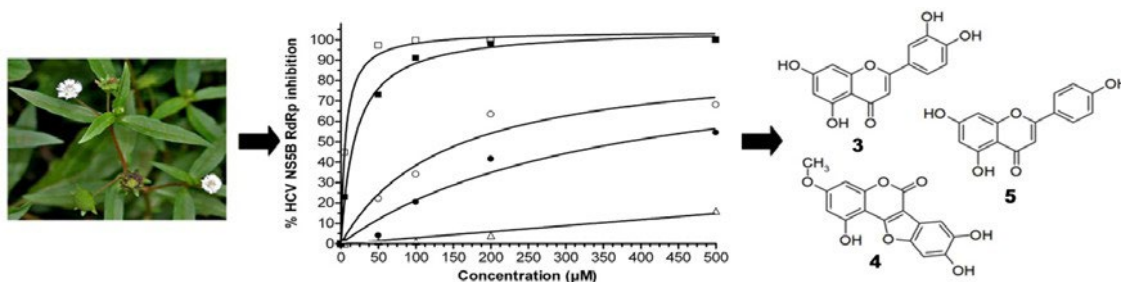


Anti-Hepatitis C Virus Activity in *Eclipta alba*: Identification of Active Phytochemicals

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Chronic hepatitis C virus (HCV) infection is the most common cause of liver cirrhosis and hepatocellular carcinoma and is an early indication for liver transplantation. In a search for Anti-HCV phytochemical, we found that the *Eclipta alba* extract potently inhibited RNA-dependent RNA polymerase (RdRp) activity (IC₅₀ 11 µg/ml) of HCV replicase (NS5B) *in-vitro*. When the extract was supplemented in a cell culture system, it effectively blocked both HCV RNA replication and translation in MH 14 cells carrying the replicating HCV subgenomic replicon. Bioassay-based fractionation of concentrated crude extract using silica gel and preparative scale reverse-phase HPLC chromatography isolated five compounds that exhibited Anti-HCV activity in a cell culture system. Three of these compounds identified as wedelolactone, leteolin and apigenin, shown dose-dependent *in-vitro* inhibition of RdRp activity of HCV replicase. In combination, wedelolactone and leteolin synergistically inhibited NS5B RdRp activity *in-vitro*. These Anti-HCV phytochemicals from *Eclipta alba* may have therapeutic potential in the treatment of chronic HCV infection and restoration of liver function.



Biography:

Dr. Virendra Pandey received his Ph.D. in 1985 from the University of Mumbai at Bhabha Atomic Research Center (BARC), India. He served as Professor (Scientist-F) at BARC and received the most prestigious Shanti Swaroop Bhatnagar Award in 1991 for his research contribution in Life Sciences. He has published more than 90 research articles in reputed peer reviewed journals and has received continuous research funding from the National Institute of Health. Currently, he is a tenured senior faculty and a member of the Rutgers University Senate.