Viral Enzyme Assay Opens the Door for New Hep B Therapies and a Possible Cure

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In a major breakthrough, researchers have identified compounds that succeed in blocking an enzyme critical to hepatitis B virus (HBV) production, possibly opening the door for the development of a new treatment class that, when combined with currently available drugs, might even eradicate the virus. Publishing their results in PLOS Pathogens, researchers at Saint Louis University, the University of Missouri and the University of Pittsburgh built on past success in developing an assay that identified the enzyme ribonuclease H (RNAseH).

Currently, the five most commonly used HBV drugs all target a DNA polymerase; RNAseH is a second vital element of the hep B life cycle and a prime potential drug target. The researchers developed 21 potential RNAseH inhibitors, which were based on antagonists of RNAseH and integrase enzymes in HIV. A total of 12 of these agents inhibited hep B RNAseH according to enzymatic assays, and one in cell-based assays.

The investigators call their work a proof of principle for this potential new class of HBV agents and are now setting their sights on studying the RNAseH enzyme in a variety of hep B genotypes.

To read the study, click here.

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http://beta.docker.hepmag.com/article/ribonuclease-assay-23481-2064207507