Guiding Innovation
Fostering Partnerships

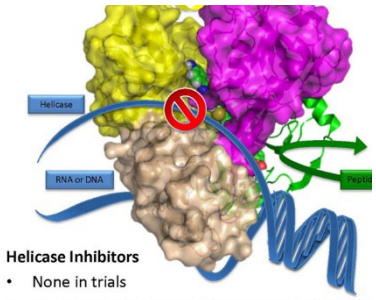
Technology Overview

Hepatitis C Helicase Inhibitors
OTT1287

Applications
Hepatitis C antiviral therapeutics.

Target Problems
Current Hepatitis C virus (HCV) treatments can be expensive, poorly tolerated, and may not be equally effective across all HCV genotypes. Existing direct acting antivirals that target HCV protease activity can also face challenges related to viral resistance and often require combination treatment with interferon and ribavirin. There is a need for new antiviral therapies that directly target HCV replication through multiple mechanisms.

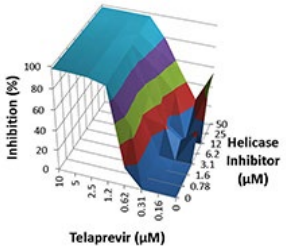
Solution
UWM researchers have developed novel direct acting antivirals (DAAs). By targeting two essential viral functions simultaneously, these compounds offer a differentiated antiviral approach designed to interfere with HCV replication. The technology may provide a platform for combination therapies that enhance antiviral effectiveness while reducing reliance on existing treatment regimens.

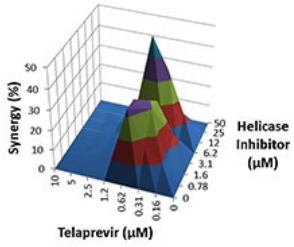


Helicase Inhibitors
- None in trials
- Most potent helicase inhibitors reported to date act through the nucleic acid
- Non-specific inhibitors are toxic

Key Benefits
- Inhibits both HCV NS3 helicase and protease activities.
- Demonstrates activity across all HCV genotypes with similar potency.
- No detectable toxicity reported in cell culture studies.
- Shows synergy when combined with other antiviral drugs.
- Directly targets viral proteins involved in HCV replication.

About this Technology
The invention includes direct acting antiviral compounds that inhibit HCV replication by targeting the NS3 helicase, an enzyme required for viral multiplication within host cells. Unlike other HCV helicase inhibitors, these compounds also inhibit NS3 protease activity. This dual-action mechanism is designed to disrupt multiple stages of the viral life cycle using a single class of compounds.





Stage of Development
The technology has been developed and demonstrated as a novel class of dual-acting HCV antivirals and is available for developmental research support and licensing.

Partnering Opportunity
We are looking for partner apps with pharmaceutical companies, antiviral drug developers, biotechnology companies, and organizations pursuing Hepatitis C therapeutics.

Intellectual Property
Issued U.S. Patent 09464064. Protected and managed by the UWM Research Foundation.

Lead Inventor
- David Frick, UWM Professor, Chemistry & Biochemistry.

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