

Repurposing Combinations of Approved Drugs for Viral Outbreak Response and Readiness

The collection of technologies offers a simple yet powerful method for identifying combinations of previously FDA approved drugs with synergistic activity against viral infections. The technology is available for immediate use in preparation IND-enabling studies in high impact viral disease areas.

What is the Problem?

Neglected diseases caused by arenaviruses, such as Lassa virus (LASV), and filoviruses, like Ebola virus (EBOV), mainly affect resource-limited countries where antiviral drug development is often minimal. There is a need for novel approaches to antiviral therapeutic development to proactively prepare for and control known and emerging arenavirus outbreaks.

What is the Solution?

The technology presented here provides a method for identifying combinations of previously FDA-approved drugs with synergistic activity against viral infections, including arenaviruses and filoviruses. This innovative approach utilizes the understanding that many viruses infect through the same mechanisms, allowing for a significant reduction in time and cost needed to develop antiviral treatment regimens. The technology also incorporates concentration-dependent variation in drug synergy to more accurately project therapeutic efficacy than traditional models.

What is the Competitive Advantage?

The competitive advantage of this innovation lies in its ability to provide a more efficient and cost-effective approach to antiviral drug development for neglected diseases. With the global infectious disease therapeutics market expected to grow significantly in the coming years, this technology has the potential to make a substantial impact by identifying potent oral therapies for use in filovirus outbreaks and addressing the unmet need for proactive antiviral development strategies.

Technology ID

BDP 8159

Category

Research Tools
Therapeutics/CNS
Therapeutics/Infection
Therapeutics/Platform
Technology
Selection of Available
Technologies

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Patent Information:

[WO2021242683A2](#)

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