

InvenioIP - Technology Details

Institution: University of Maryland, Baltimore

Docket: RZ-2005-116

Title: BYDV MP Is a Viral Determinant for Retarded Plant Growth, Cell Cycle G2/M Arrest and Mitotic Abnormality

Summary: Barley yellow dwarf virus (BYDV) is a global viral disease of cereals. Stunted growth of plants is one of the primary symptoms of BYDV infections resulting in significant yield loss and an enormous economical impact on crop production. BYDV is transmitted by aphids and infects a wide host range including wheat, oats, and barley. This viral disease has been found worldwide in Asia, Australia, Africa, Canada, Europe, New Zealand, South America, and in the U.S. Since BYDV infections via aphids are unpredictable, there are currently few options for controlling this viral disease, by which they are generally ineffective, not practical or economical. The present invention relates to the discovery of viral movement protein (MP) as the contributor to retarded growth of plants providing a new strategy and a specific target for anti-BYDV infection. More specifically, the invention is directed to methods of identifying BYDV MP suppressors, the compounds identified by these screens and their use as a viricide.

Applications: Barley yellow dwarf virus plant infection.

Advantages:

- Novel target and strategy for BYDV plant therapy.
- Broad plant product applications.
- Enormous economic implications.

State of Development: The technology has been successful in in-vitro and in-vivo studies.

R and D Required: Studies are required for further development.

Licensing Potential: UMB seeks to develop and commercialize via an exclusive or non-exclusive license agreement and/or sponsored research with a company active in the area.

Patent Status: Patent Pending

Related Publications: None

Files:  [PCT/WO2007/070545](https://patent.gov/patents/PCT/WO2007/070545)

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