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### Specific amino acids of Olive mild mosaic virus coat protein are involved in transmission by *Oplidium brassicae*

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**Abstract:** Transmission of Olive mild mosaic virus (OMMV) is facilitated by *Oplidium brassicae* (Wor.) Dang. An OMMV mutant (OMMVL11) containing two changes in the coat protein (CP), asparagine to tyrosine at position 189 and alanine to threonine at position 216, has been shown not to be *Oplidium brassicae*-transmissible owing to inefficient attachment of virions to zoospores. In this study, these amino acid changes were separately introduced into the OMMV genome through site-directed mutagenesis, and the asparagine-to-tyrosine change was shown to be largely responsible for the loss of transmission. Analysis of the structure of OMMV CP by comparative modelling approaches showed that this change is located in the interior of the virus particle and the alanine-to-threonine change is exposed on the surface. The asparagine-to-tyrosine change may indirectly affect attachment via changes in the conformation of viral CP subunits, altering the receptor binding site and thus preventing binding to the fungal zoospore.

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