

# WEB OF KNOWLEDGE<sup>™</sup> DISCOVERY STARTS HERE

Sign In | Marked List (0) | My EndNote Web | My ResearcherID | My Citation Alerts |
My Journal List | My Saved Searches | Log Out | Help

All Databases

Select a Database

Web of Science

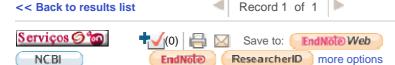
Additional Resources

Search

Search History

Compound Marked List (0)

### **All Databases**



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

**Author(s):** Varanda, C (Varanda, Carla)<sup>1,2</sup>; Felix, MD (Felix, Maria do Rosario)<sup>1,2</sup>; Soares, CM (Soares, Claudio M.)<sup>3</sup>; Oliveira, S (Oliveira, Solange)<sup>1,4</sup>; Clara, MI (Clara, Maria Ivone)<sup>1,2</sup>

Source: JOURNAL OF GENERAL VIROLOGY Volume: 92 Pages: 2209-2213 DOI: 10.1099/vir.0.032284-0 Part: Part 9

Published: SEP 2011

Times Cited: 0 (from Web of Science)

Abstract: Transmission of Olive mild mosaic virus (OMMV) is facilitated by Olpidium 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 Olpidium brassicaetransmissible 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-tothreonine change is exposed on the surface. The asparagine-totyrosine 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.

**Document Type:** Article **Language:** English

KeyWords Plus: TOBACCO NECROSIS VIRUS; PLANT-VIRUSES

Reprint Address: Varanda, C (reprint author), Univ Evora, Inst Ciencias Agr & Ambientais Mediterran, P-7002554 Evora, Portugal

#### **Addresses**

1. Univ Evora, Inst Ciencias Agr & Ambientais Mediterran, P-

### Times Cited: 0

This article has been cited 0 times in Web of Knowledge.

Record from Web of Science SM

Create Citation Alert

#### **Related Records:**

Find similar Web of Knowledge records based on shared references.

[ view related records ]

### Cited References:

View the bibliography of this record (from Web of Science <sup>SM</sup>).

Citation Map

### Additional information

- View the journal's Table of Contents (in Current Contents Connect®)
- View the journal's impact factor (in Journal Citation Reports®)

### View this record in other databases:

- View citation data (in Web of Science SM)
- View most recent data (in Current

7002554 Evora, Portugal

- 2. Univ Evora, Dept Fitotecnia, P-7002554 Evora, Portugal
- 3. Univ Nova Lisboa, Inst Tecnol Quim & Biol, P-2780157 Oeiras, Portugal
- 4. Univ Evora, Dept Biol, P-7002554 Evora, Portugal

E-mail Address: carlavaranda@uevora.pt

#### **Funding:**

Funding Agency	<b>Grant Number</b>
Fundacao para a Ciencia e a Tecnologia (FCT)	SFRH/BD/29398/2006

#### [Show funding text]

**Publisher:** SOC GENERAL MICROBIOLOGY, MARLBOROUGH HOUSE, BASINGSTOKE RD, SPENCERS WOODS, READING RG7 1AG, BERKS, ENGLAND

Web of Science Category: Biotechnology & Applied Microbiology;

Virology

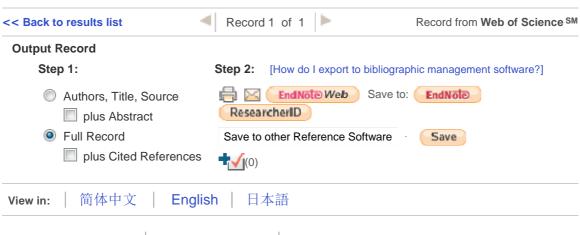
Subject Category: Biotechnology & Applied Microbiology; Virology

IDS Number: 822BO ISSN: 0022-1317 Contents Connect®)

- View biological data (in BIOSIS Citation Index SM)
- View biological data (in BIOSIS Previews®)
- View medical data (in MEDLINE®)

## Suggest a correction

If you would like to improve the quality of the data in this record, please suggest a correction.



© 2011 Thomson Reuters | Acceptable Use Policy | Please give us your feedback on using Web of Knowledge.