

Template for Taxonomic Proposal to the ICTV Executive Committee

Creating Species in an existing genus

Code[†] To designate the following as species in the genus:

belonging to the family[°] :

Olive mild mosaic virus
Olive mild mosaic virus – GP (OMMV-GP)
[AY616760](#)

[†] Assigned by ICTV officers

[°] leave blank if inappropriate or in the case of an unassigned genus

Author(s) with email address(es) of the Taxonomic Proposal

G.P. Martelli : martelli@agr.uniba.it

R. Koenig: r.koenig@bba.de

Old Taxonomic Order

Order: None

Family: *Tombusviridae*

Genus: *Necrovirus*

Type Species: *Tobacco necrosis virus A*

Species in the Genus: 6

Tentative Species in the Genus: 2

Unassigned Species in the family: None

New Taxonomic Order

Order: None

Family: *Tombusviridae*

Genus: *Necrovirus*

Type Species: *Tobacco necrosis virus A*

Species in the Genus: 7

Tentative Species in the Genus: 2

Unassigned Species in the family: none

ICTV-EC comments and response of the SG

Species demarcation criteria in the genus

The criteria demarcating species in the genus are:

Extent of serological relationship

Less than 62% aa sequence identity at the CP level

Less than 76% aa sequence identity at the RdRp level

Natural host range

Transmission by a fungal vector

Artificial host range reactions

Argumentation to justify the designation of new species in the genus

To give a taxonomic allocation to a recently described olive virus with isometric particles shown to be a recombinant between two definitive necrovirus species *Olive latent virus 1* and *Tobacco necrosis virus D*

List of created Species in the genus

Olive mild mosaic virus (OMMV)

References

Felix M.R.F., Clara M.I.E., 2002. Two necrovirus isolates with properties of Olive latent 1 and of Tobacco necrosis virus from olive in Portugal. *Acta Horticulturae* **586**:725-728

Cardoso J.M.S., Felix R.R., Oliveira S., Clara M.I.E., 2004a. A *Tobacco necrosis virus D* isolate from *Olea europaea* L.: viral characterization and coat protein sequence analysis. *Archives of Virology* **149**: 1129-1138.

Cardoso J.M.S., Felix R.R., Clara M.I.E., Oliveira S., 2004b. The complete genome sequence of a new necrovirus isolated from *Olea europaea* L. *Archives of Virology* (published on line December 10 2004)

ANNEX

Olive mild mosaic virus (OMMV) was originally identified as a strain of *Tobacco necrosis virus* (TNV) based on a “close” serological relationship (determined by ELISA) (Felix and Clara, 2002) and on the high homology (86.2%) of the coat protein (CP) sequence (Cardoso *et al.*, 2004a). Further molecular investigations that encompassed the complete genome sequence, disclosed that OMMV is an apparent recombinant between TNV-D and *Olive latent virus 1* (OLV-1) (Cardoso *et al.*, 2004b) another definitive species of the genus *Necrovirus*.

Biological properties. Olive mild mosaic virus (OMMV) is mechanically transmissible isometric virus isolated from olive in Portugal. It has a herbaceous host range comparable to that of known necroviruses except for the fact that it does not induce local lesions in White Burley tobacco.

Serology. A serological relationship was detected between OMMV and TNV but not between OMMV and OLV-1 using a commercial ELISA kit

Physico-chemical properties. OMMV has isometric particles about 30 nm in diameter with a rounded contour and poorly resolved surface structure. The nucleic acid is a single-stranded RNA about 1.3 Kb in size. The coat protein is made up of a single type of subunits with a Mr of about 30 kDa.

Molecular properties. The genomic RNA (3683 nt in size) has the same structural organization, number of ORFs, and gene sequence of members of the genus *Necrovirus*. Its RdRp has 34% and 91% amino acid sequence identity with the corresponding genes of TNV-D and OIV-1, respectively, whilst the amino acid sequence identity of the CP gene is 86% and 41% with that TNV-D and OLV-1, respectively.