Template for Taxonomic Proposal to the ICTV Executive Committee Creating Unassigned Species in the virus Kingdom

Code[†] 2006.003P.04 To designate the following as unassigned species in the virus Kingdom:

Lilac chlorotic leaf spot virus

[†] 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 on behalf of the ICTV Study Groups on *Closteroviridae* and *Flexiviridae*

New Taxonomic Order

List of Unassigned Species in the Virus Kingdom

ICTV-EC comments and response of the SG

We recognize that there are some data on this virus but that it is impossible to place it with any certainty within the current classification. This should therefore be treated as an unassigned virus until more information becomes available but this will remove its official species status.

Argumentation to justify the designation of unassigned species in the Virus Kingdom

Lilac chlorotic leafspot virus (LiCLV) was described by Brunt (1978; 1979) as a possible member of the closterovirus group. However, in the 6th Report of ICTV, this virus was classified as a definitive species of the genus *Capillovirus*, a position retained ever since.

These are the known properties of LiCLV:

(i) Particles: Filamentous, flexuous (apparently a bit less than those of closteroviruses), c. 1540 nm long, helically constructed (pitch of c. 3.7 nm), showing open particle structure and distinct cross banding
(ii) Nucleic acid: ssRNA accounting for c. 5% of the particle weight
(iii) Genome properties: undetermined
(iv) Capsid protein: a single type of subunits with Mr of 27,000 Da (based on electrophoretic migration)
(v) Sedimentation coefficient: 96*S*
(vi) $A_{260}/A_{280.}$ 1.69 (as high as that of *Beet yellows virus*)
(vii) Mechanically transmissible to a relatively wide range of herbaceous hosts
(viii) Serologically unrelated to the definitive closteroviruses *Beet yellows virus*, *Beet yellow stunt virus* and *Carnation necrotic fleck virus* and also to the capillovirus *Apple stem grooving virus*
(ix) Transmission through seed: none
(x) Transmission by aphids (three species): unsuccessful
(xi) Cytopathological features differing from those of members of the genus *Closterovirus*

Although, based on morphology and size of virus particles and their physical properties, LiCLV resembles more a closterovirus than a capillovirus, its assignment to the family *Closteroviridae* does not seem to be supported by sufficient evidence, and there is also no molecular information. On the other hand, retention of LiCLV in the genus *Capillovirus* seems equally unjustified. Removal of LiCLV from the genus *Capillovirus* is therefore proposed, concomitantly with its inclusion among unassigned species in the virus kingdom

List of created Unassigned Species in the Virus Kingdom

Lilac chlorotic leafspot virus (LiCLV)

References

Brunt, A.A., 1978. The occurrence, hosts and properties of lilac chlorotic leafspot virus, a newly recognized virus from *Syringa vulgaris*. *Annals of Applied Biology*, **88**: 383.391.

Brunt, A.A., 1979. Lilac chlorotic leafspot virus. *CMI/AAB Descr iptions of Plant Viruses,* No 202

Brunt, A.A. and Stace-Smith. R, The intracellular location of lilac chlorotic leafspot virus *Journal of General Virology,* **39**: 63-71

Annexes: