# Taxonomic proposal to the ICTV Executive Committee



This form should be used for all taxonomic proposals. Please complete all those modules that are applicable (and then delete the unwanted sections).

| Code(s) assigned:  | 2008.077B | (to be completed by ICTV officers) |  |  |
|--|-----------|------------------------------------|--|--|
| Short title: create species named Enterobacteria phage Era103 within the genus "SP6-like viruses" in the subfamily Autographivirinae, family Podoviridae (e.g. 6 new species in the genus <i>Zetavirus</i> ; re-classification of the family <i>Zetaviridae</i> etc.)  Modules attached  1 2 3 4 5 (please check all that apply):  6 7 |           |                                    |  |  |
| Author(s) with e-mail address(es) of the proposer:   |           |                                    |  |  |
| Ian J. Molineux molineux@mail.utexas.edu   |           |                                    |  |  |
| ICTV-EC or Study Group comments and response of the proposer:  |           |                                    |  |  |
|  |           |                                    |  |  |

## **MODULE 5: NEW SPECIES**

| Code <b>2008.077B</b>                     |                       | (assigned by ICTV officers)  |
|---|-----------------------|--|
| To create new species assigned as follows |                       | Fill in all that apply. Ideally, species                                     |
| Genus                                     | s: "SP6-like viruses" | should be placed within a genus, but it is                                   |
| Subfamily                                 | y: Autographivirinae  | acceptable to propose a species that is within a Subfamily or Family but not |
| Family                                    | y: Podoviridae        | assigned to an existing genus (in which                                      |
| Order                                     | r: Caudovirales       | case put "unassigned" in the genus box)                                      |

### Name(s) of proposed new species:

| Enterobacteria phage Era103 |
|-----------------------------|
| 1 0                         |

## Argument to justify the creation of the new species:

If the species are to be assigned to an existing genus, list the criteria for species demarcation and explain how the proposed members meet these criteria.

Era103 was first described in 1985 as a phage containing a polysaccharide depolymerase growing on *Erwinia amylovora*. Era103 codes for its own RNA polymerase and thus should be assigned to the subfamily *Autographivirinae*. The Era103 genome contains 45,445 bp (NC 009014), with 53 annotated ORFs. A majority of ORFs show greatest predicted sequence similarity to SP6. The promoter specificity of Era103 RNA polymerase is different from that of SP6, and the 277 bp terminal repeats - essential for DNA replication - are also different. Unlike other members of the genus, Era103 contains a SAR-domain lysozyme. This proposed species can be cearly differentiated from related phages like SP6, K1-5 and K1E, since it bears limited DNA homology to these phages and contains several unique genes.

#### **References:**

Vandenbergh, P.A., Wright, A.M. and Vidaver, A.K. Partial Purification and Characterization of a Polysaccharide Depolymerase Associated with Phage-Infected Erwinia amylovora. Appl. Environ. Microbiol. 49 (4), 994-996 (1985)

#### **Annexes:**

Include as much information as necessary to support the proposal. The use of Figures and Tables is strongly recommended.