



MODULE 1: **TITLE, AUTHORS, etc**

Code assigned:	2016.015aD	(to be completed by ICTV officers)
Short title:	1 new species in the genus <i>Betapolyomavirus</i>	
Modules attached	2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/>	

Author(s):

Jolanda van Persie, Hester Buitendijk, Zahra Fagrouch, Willy Bogers, Tom Haaksma, Ivanela Kondova, Ernst J. Verschoor

Corresponding author with e-mail address:

verschoor@bprc.nl

List the ICTV study group(s) that have seen this proposal:

Polyomaviridae SG

ICTV Study Group comments (if any) and response of the proposer:

Date first submitted to ICTV: June 18, 2016
Date of this revision (if different to above): June 30, 2016

ICTV-EC comments and response of the proposer:

MODULE 2: **NEW SPECIES**

Code	2016.015aD	(assigned by ICTV officers)
To create 1 new species within:		
Genus:	<i>Betapolyomavirus</i>	
Subfamily:		
Family:	<i>Polyomaviridae</i>	
Order:		
Name of new species:	Representative isolate: (only 1 per species please)	GenBank sequence accession number(s)
<i>Pan troglodytes polyomavirus 8</i>	Pan troglodytes verus polyomavirus 8 (abbr.: PtrovPyV8), isolate Ch-Regina	KT884050

Reasons to justify the creation and assignment of the new species:
<ol style="list-style-type: none"> 1. The complete genome was published (van Persie et al., 2016¹). This fulfills number 1 of the species definition criteria published in 2016 by the Polyomaviridae Study Group and ratified by ICTV in May 2016 (2015.015a-aaD.A.v2.Polyomaviridae_rev²; Calvignac Spencer et al. 2016³). 2. PtrovPyV8 has a typical polyomavirus genome organization. This fulfills number 2 of the species definition criteria. 3. The natural host is known. The virus was isolated from a Western chimpanzee (<i>Pan troglodytes verus</i>) from the former BPRC colony¹, and the virus was also detected in a spleen sample from a wild-caught Western chimpanzee (B. Ehlers and N. Ben-Salem, unpublished data) (acc. no. KU865500). This fulfills number 3 of the species definition criteria. 4. Using the MAFFT module in Geneious 9.1.3., the LTA_g CDS of PtrovPyV8 was compared pairwise with those of other PyVs. PtrovPyV8 (KT884050) and BKPyV (species <i>Human polyomavirus 1</i>) (NC_001538) were most closely related (17 % nucleic acid diversity). This fulfills number 4 of the species definition criteria (>15% observed genetic distance on basis of LTA_g CDS). 5. PtrovPyV8 clusters with members of the genus <i>Betapolyomavirus</i> (Figure in Appendix).

MODULE 11: **APPENDIX**: supporting material

additional material in support of this proposal

References:

¹ van Persie, J., Buitendijk, H., Fagrouch, Z., Bogers, W., Haaksma, T., Kondova, I., & Verschoor, E. J. (2016). Complete genome sequence of a novel chimpanzee polyomavirus from a western common chimpanzee. *Genome Announcements*, 4(1), e01406-15.

² Calvignac-Spencer, S., Feltkamp, M., Daugherty, M.D., Moens, U., Ramqvist, T., Johne, R., Ehlers, B. (2015). ICTV taxonomic proposal 2015.015a-aaD.A.v2.Polyomaviridae_rev. In the family *Polyomaviridae*, create 4 genera (*Alphapolyomavirus*, *Betapolyomavirus*, *Gammapolyomavirus* and *Deltapolyomavirus*) and reclassify 8 existing species.

http://www.ictvonline.org/proposals-15/2015.015a-aaD.A.v2.Polyomaviridae_rev.pdf

³ Calvignac-Spencer, S., et al. (2016). A taxonomy update for the family *Polyomaviridae*. *Archives of Virology* 161(6), 1739-1750.

Supporting Figure. Maximum likelihood tree based on an alignment of large T sequences (503 amino acid positions). Bayesian analyses supported a very similar topology. Weakly supported branches are grey (approximate likelihood ratio test and/or posterior probability <0.95). Proposed novel species are in enlarged, black font.

