Corrigendum

Corrigendum to “Infectious genomic RNA of Rhopalosiphum padi virus transcribed in vitro from a full-length cDNA clone” Virology 375(2) (2008) 410–411

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This article has been corrected at the request of the Authors.

Reason: The acquisition of a full length infectious clone of Rhopalosiphum padi virus (RhPV; Dicistroviridae) was reported. It was determined that the sequence reported in Table 1 is incorrect. In particular, a mutation in the clone at 2185 nt (deletion of a cytosine) results in a frame shift and an early stop codon in ORF1. The helicase, protease, and RNA-dependent RNA polymerase (RdRP), which is required for virus replication, are not expected to be produced. Therefore, the clone RhPV6-1 is highly unlikely to be infectious. However, the results presented in the manuscript can be explained on the basis of the following:

The GWSS-Z10 line used in this study was lost. Virus-like particles observed by TEM in the GWSS-Z15 cell line suggest that covert viruses are present. The same may have been true for the GWSS-Z10 line. In addition, sequences similar to Aphid lethal paralysis virus (Dicistroviridae) and Big Sioux river virus (of which the reported partial structural polyprotein is 70% identical to RhPV at the amino acid level) were detected in the aphid host (R. padi).

- Complementation between RhPV6-1 and other viruses present in GWSS-Z10 cells used in the publication and potentially also in the aphid colony could have occurred such that the mutant RhPV6-1 genome was replicated in trans by the RdRP from other viruses.
- The viral coat protein that was detected by western blot could have been produced via translation of non-replicating, non-infectious viral RNA owing to the powerful IRES in the viral genome. A heterologous protease would be required for processing of the polyprotein for assembly of coat proteins with the RNA into virions.
- Tagged primers, which are now deemed essential for accurate detection of positive and negative strand dicistrovirus sequences, were not used in this study.

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