

CORRECTION

# Correction: A Leafhopper-Transmissible DNA Virus with Novel Evolutionary Lineage in the Family *Geminiviridae* Implicated in Grapevine Redleaf Disease by Next-Generation Sequencing

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[Table 2](#) is missing information regarding GVGF and GVGR. Please see the corrected [Table 2](#) here.



## OPEN ACCESS

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**Table 2. Oligonucleotide primers used for amplification of virus- and viroid-specific sequences by RT-PCR and PCR.**

Name	Sequence	Genome Position (from 5' end)
<b>For genome characterization of GRLaV:</b>		
GRLaV-1-For	CCCATGGTACGTGGTATTCTTGCG	11–34
GRLaV-1-Rev	CAGTCCAGTAGGAAACCGATC	1033–1054
GRLaV-2-For	GGCCTCGTAGTAGGCCTTGTC	811–831
GRLaV-2-Rev	GCAACATTCAAGCCGTGGGCTG	1967–1988
GRLaV-3-For	GCATAGTCCAGACAGTCGTTGTAC	1728–1751
GRLaV-3-Rev	GCCCAGAGATGTCGCCGACGTGC	2778–2800
GRLaV-4-For	GTAGATTGAGGACGTATTGG	2601–2620
GRLaV-4-Rev	CGCAAGAATACCACGTACCATGGG	34–11
<b>For detection of viruses and viroids by PCR/RT-PCR:</b>		
GVGF <sup>1</sup>	CTCGTCGCATTTGTAAGA	255–272
GVGR <sup>1</sup>	ACTGACAAGGCCTACTACG	793–811
GFLV-For	ACTGGTTTGACGTGGGTGAT	2224–2243 (RNA-2)
GFLV-Rev	CCAAAGTTGGTTTCCAAGA	2526–2545 (RNA-2)
GRSPaV-For	GATGAGGTTCAAGTTGTTTC	4372–4390
GRSPaV-Rev	TCACCAAATGTGAGAGTGAGCTG	4771–4793
HpSVd-For	GAGCCCCGGGGCAACTCTTCTC	74–95
HpSVd-Rev	TTTCTCAGGTAAGTACCTCCCTG	50–72
GYSVd-1-For	TGCCTCCGCTAGTCGAGCGG	254–273
GYSVd-1-Rev	CGACGACGAGGCTCACT	88–104
CEVd/CEYVd-For	GGAAACCTGGAGGAAGGTG	9–27
CEVd/CEYVd Rev	CCGGGTACATATTCACCGCGGCA	206–228

GRLaV = Grapevine redleaf-associated virus, GRSPaV = *Grapevine rupestris stem pitting-associated virus*, GFLV = *Grapevine fanleaf virus*, HpSVd = *Hop stunt viroid*, GYSVd-1 = *Grapevine yellow speckle viroid 1*, GYSVd-2 = *Grapevine yellow speckle viroid 2*, CEVd = *Citrus exocortis viroid*, CEYVd = *Citrus exocortis Yucatan viroid*, For = forward (sense) primer, Rev = reverse (antisense) primer.

<sup>1</sup> Primers provided by Dr. M. R. Sudarshana, Research Biologist, USDA-ARS, Davis, CA 95616.

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There is an error regarding the presence of *Citrus exocortis yucatan viroid* (CEYVd) and *Citrus exocortis viroid* (CEVd) sequences. The sequences of *Citrus exocortis viroid* (CEVd) and *Citrus exocortis yucatan viroid* (CEYVd) originally listed in the NCBI database are wrongly annotated. *Citrus exocortis viroid* and *Citrus exocortis Yucatan viroid* are mitochondrial rRNA sequences. NCBI has removed CEVd (accession no. KC427103, KC427104) and CEYVd (accession no. KC427105, KC427106) sequences from GenBank.

[Table 1](#) and [S1 Fig](#) reference the incorrect CEVd and CEYVd sequences. Please see the corrected [Table 1](#) and [S1 Fig](#) here.

**Table 1. Classification of pathogen-specific sequence reads from symptomatic and non-symptomatic samples.**

Category of sequence reads	Reads from ribo-depleted cDNA library		Reads from dual-depleted cDNA library	
	Symptoms	No Symptoms	Symptoms	No Symptoms
<b>Reads mapped to specific virus</b>				
GRLaV	15,036	0	406	0
GFLV	14,383	0	978	0
GRSPaV	662	1,353	42	68
<b>Reads mapped to specific viroid</b>				
GYSVd-1	13,914	9,004	987	490
HpSVd	1964	2980	164	185
Others*	8,029	2,931	655	1,616
<b>Total</b>	<b>53,988</b>	<b>16,268</b>	<b>3,232</b>	<b>2,359</b>

GRLaV = Grapevine redleaf-associated virus, GRSPaV = Grapevine rupestris stem pitting-associated virus, GFLV = Grapevine fanleaf virus, HpSVd = Hop stunt viroid, GYSVd-1 = Grapevine yellow speckle viroid 1.

\*Reads mismapped to virus- or viroid-like sequences.

Classification and abundance of high-throughput sequence reads obtained from ribo-depleted and dual-depleted cDNA libraries were determined by mapping the reads onto the virus/viroid database using mapping software BWA 0.6.

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## Supporting Information

**S1 Fig. Alignment of mapped contigs to respective genomes of Grapevine redleaf-associated virus, Grapevine fanleaf virus, Grapevine rupestris stem pitting-associated virus, Hop stunt viroid, Grapevine yellow speckle viroid 1, Citrus exocortis viroid and Citrus exocortis Yucatan viroid.** Nucleotide numbers of each virus and viroid genome is indicated at the top and bottom. Each bar represents the location of individual contigs aligning with the genome. (TIF)

## Reference

1. Poojari S, Alabi OJ, Fofanov VY, Naidu RA (2013) A Leafhopper-Transmissible DNA Virus with Novel Evolutionary Lineage in the Family *Geminiviridae* Implicated in Grapevine Redleaf Disease by Next-Generation Sequencing. PLoS ONE 8(6): e64194. doi:[10.1371/journal.pone.0064194](https://doi.org/10.1371/journal.pone.0064194) PMID: [23755117](https://pubmed.ncbi.nlm.nih.gov/23755117/)