First report of grapevine rupestris vein feathering virus in grapevine in Iran

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Grapevine rupestris vein feathering virus (GRVFFV) is a putative member of the genus *Marafivirus*, family *Tymoviridae*, reported to infect grapevine for the first time in Greece. Since then, GRVFFV has been found in the USA, Canada, Uruguay, Italy, Spain, the Czech Republic, China, Switzerland, New Zealand, Korea, Germany, Slovakia and Pakistan (Glaser et al. 2018; Mahmood et al. 2019). In July 2016, a grapevine sample from cultivar Salatino (R8) showing vein banding symptoms was collected in Takestan (Qazvin province, Iran) and analyzed by high throughput sequencing using RNAseq TrueSeq Illumina technology. Data analysis was performed by CLC Genomics Workbench 10.1.1 software. After quality control, 8,177,870 reads were subjected to host genome subtraction and the 837,566 grapevine unrelated reads used to assemble *de novo* 5164 contigs. BLAST analysis revealed the presence of one contig of 375 nt related to GRVFFV. Contigs related to grapevine leafroll-associated virus 7, Australian grapevine viroid, grapevine yellow speckle viroid

1 and hop stunt viroid were also found. The 837,566 reads were mapped using as references full-length GRVFFV sequences, allowing the recovery of 70.1% (4699 nt) of the GRVFFV genome in 13 partial genomic sequences. Among them, a fragment of 861 nt (MN228563) in the protease/helicase region and a fragment of 576 nt (MN228562) in the RNA-dependent RNA polymerase region showed 83.04% and 84.72% similarity with isolates ChTK0004 (MF000326) and Ch8021 (MF000325) from New Zealand, respectively. To confirm the presence of GRVFFV in R8 sample, a 445 bp fragment was amplified by RT-PCR, using primers 5'-ACTCWCYATCCCCCTTCCAGT-3' and 5'-GCTG ACCATGCCACGAATCA-3' (Reynard et al. 2017). Sanger sequencing of the PCR product (MN206077) confirmed the presence of GRVFFV in R8 sample. In addition, a total of 23 out of 38 samples collected from different Iranian vineyards tested positive for GRVFFV by RT-PCR. To our knowledge this is the first report of GRVFFV in Iran.

Maryam Khalili and Shaheen Nourinejhad Zarghani contributed equally to this work.

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