Supplementary File S1: Etymology of newly proposed taxa (depicted in bold in Figure 11). Taxa officially proposed to the International Committee on Taxonomy of Viruses (ICTV) by the authors of this article (1-4), and by now approved by the ICTV Executive Committee, are listed in alphabetical order and are bolded and color-coded as in Figure 11. Bolded taxon names from Figure 11 not in the list below have been proposed separately by others and can be found in various taxonomic proposals listed at https://talk.ictvonline.org/files/proposals/

- ***Algavirales***: after alga and the suffix -*virales* for order taxa
- ***Allassoviricetes***: from Greek αλλάσσω [allásso] meaning mutate (refers to the high mutation rate of levivirids); the suffix -*viricetes* denotes class taxa
- ***Alsuviricetes***: consists of a portmanteau of "alphavirus supergroup" and the suffix -*viricetes* for class taxa
- ***Amabiliviricetes***: after Zulu amabili meaning twenty. Twenty refers to W/20S RNA of baker's yeast (*Saccharomyces cerevisiae*), which is an RNA-directed RNA polymerase (5, 6)); the suffix -*viricetes* denotes class taxa
- ***Amarillovirales***: from Spanish amarillo meaning yellow (refers to yellow fever virus); the suffix -*virales* denotes order taxa
- ***Artververicota***: consists of a portmanteau of reverse transcriptase read backwards and the suffix -*viricota* for phylum taxa
- ***Asfuvirales***: consists of a portmanteau of *Asfarviridae* and "faustovirus," a likely member of the order together with "pacmanviruses" and "kaumoebaviruses," and the suffix -*virales* for order taxa
- ***Bamfordvirae***: after Dennis Bamford who first promoted the evolutionary unity of all DJR-MCP viruses (7, 8); the suffix -*virae* denotes kingdom taxa
- ***Belfryvirales***; from belfry, a tower (turret) that contains a bell; the suffix -*virales* denotes order taxa
- ***Blubervirales***: in honor of Barry Blumberg† for his role in hepatitis B research (9); the suffix -*virales* denotes order taxa
- ***Caudoviricetes***: derived from Latin caudo, meaning tail. Tail refers to the current order *Caudovirales*, which will likely be reorganized (and its name dissolved) in the near future; the suffix -*viricetes* denotes class taxa
- ***Chitovirales***: to honor the suggested name for a higher-rank taxon for poxviruses proposed by Lwoff and Tournier in 1966 ("Chitovirales" from Greek χιτών [khitōn], a specific garment and a reference to the morphological structure of poxviruses) for the "LHT system" (10-12); the suffix -*virales* denotes order taxa
- ***Chrymotiviricetes***: a portmanteau of chrysovirus, megabirnavirus, and totivirus; the suffix -*viricetes* denotes class taxa
- ***Cossaviricota***: after Yvonne Cossart†, who co-discovered parvovirus B19 (13); the suffix -*viricota* denotes phylum taxa
- ***Cryppavirales***: a portmanteau of *Cryphonectra parasitica*, the species of the fungus in which the first mitovirus was discovered; the suffix -*virales* denotes order taxa
- ***Dividoviricota***: from Esperanto divido, meaning division. Division refers to the "split" double jelly roll (two vertical single jelly rolls) major capsid protein encoded by viruses in this taxon; the suffix -*viricota* denotes phylum taxa

- ***Duplodnaviria***: a portmanteau of Latin dūplō, meaning double, and DNA, (refers to double-stranded dsDNA genomes); the suffix -*viria* denotes realm taxa
- ***Duplopiviricetes***: a portmanteau of Italian duplo meaning double (refers to double-stranded RNA) and the first two letters of picobirnaviruses; the suffix -*viricetes* denotes class taxa
- ***Duplornaviricota***: a portmanteau of Italian duplo meaning double (refers to double-stranded RNA), and RNA; the suffix -*viricota* denotes phylum taxa
- ***Durnavirales***: a portmanteau of Italian duplo meaning double (double refers to double-stranded RNA) and RNA; the suffix -*virales* denotes order taxa
- ***Faserviricetes***: after German Faser, meaning fiber (a reference to *Inoviridae*, which is derived from Greek ίνα [ína]) and the suffix -*viricetes* for class taxa
- ***Flasuviricetes***: consists of a portmanteau of "flavivirus supergroup" and the suffix -*viricetes* for class taxa
- ***Ghabrivirales***: in honor of the late Said Ghabrial†, a pioneer in study of the viruses in this order and former ICTV Subcommittee Chair for Fungal and Protist viruses; the suffix -*virales* denotes order taxa
- ***Halopanivirales***: a portmanteau of *Haloarcula hispanica*, the host of founding member "archaeal virus SH1" of this clade (14); the suffix -*virales* denotes order taxa
- ***Haloruvirales***: after Halorubrum pleomorphic virus 1 (HRPV-1, member of the type species of *Alphapleolipovirus*, *Pleolipoviridae*) and the suffix -*virales* for order taxa
- ***Helvetiavirae***: from Latin helvetia meaning Swiss, a reference to the Swiss rolls (an alternative name for jelly roll. Jelly roll refers to the jelly roll fold of the capsid proteins of viruses in this taxon); the suffix -*virae* denotes kingdom taxa
- ***Hepelivirales***: consists of a portmanteau of hepevirus-like and the suffix -*virales* for order taxa
- ***Herviviricetes***: from herpesvirus and the suffix -*viricetes* for class taxa
- ***Heunggongvirae***: from Cantonese 香港 [Hēunggóng], meaning (and approximately pronounced) Hong Kong. Hong Kong refers to Escherichia coli phage HK97, the founding member of the HK97 [Hong Kong 97]-fold major capsid protein of viruses in this taxon; the suffix -*virae* denotes kingdom taxa
- ***Hofneiviricota***: after Peter H. Hofschneider†, who described "phage M13" in 1963 (15) and the suffix -*viricota* for phylum taxa
- ***Howeltoviricetes***; after Howell Township, New Jersey, USA, where a fungus (*Cryphonectria parasitica*) was isolated that was infected with the type mitovirus (16); the suffix -*viricetes* denotes class taxa
- ***Huolimaviricetes***; after Finnish huolimaton, meaning sloppy (refers to the "sloppy" assembly of pleolipovirions (17)); the suffix -*viricetes* denotes class taxa
- ***Imitervirales***: from French imiter, meaning to mimic (refers to mimiviruses [microbe-imitating]; the suffix -*virales* denotes order taxa
- ***Kalamavirales***: after Kalamazoo, USA, where Pseudomonas phage PRD1 (*Tectiviridae*: *Alphatectivirus*) was first isolated (18); the suffix -*virales* denotes order taxa
- ***Kitrinoviricota***: after Greek κίτρινος [kítrinos] meaning yellow (refers to yellow fever virus); the suffix -*viricota* denotes phylum taxa

- ***Laserviricetes:*** consists of a portmanteau of Serpentine Lake, Rottnest Island, Western Australia, Australia, where the first virus of this taxon, "archaeal virus SH1" was discovered (14); the suffix -*viricetes* denotes class taxa
- ***Lenarviricota***: consists of a portmanteau of *Leviviridae* and *Narnaviridae* and the suffix -*viricota* for phylum taxa
- ***Levivirales***: after *Leviviridae*, assuming that *Leviviridae* will have to be promoted shortly to accommodate the rapidly expanding diversity of this taxon; the suffix -*virales* denotes order taxa
- ***Loebvirae***: after T. Loeb†, who described "phage f1" in 1960 (19); the suffix -*virae* denotes kingdom taxa
- ***Magsaviricetes***: from Mag 115, the original designation of Nodamura virus, and Saitama Prefecture, Japan, where studies were performed that led to the discovery of Mag 115/Nodamura virus (20); the suffix -*viricetes* denotes class taxa
- *Malgrandaviricetes*: after Esperanto malgranda, meaning micro/small and the suffix -*viricetes* for class taxa
- ***Martellivirales***: a reference to G. P. Martelli, a pioneer in closterovirid research, and a long-time ICTV EC Member and two-mandate ICTV Plant Virus SC Chair; the suffix -*virales* denotes order taxa
- ***Maveriviricetes***: from Maverick, a reference to maviruses that shares many features with the large, virus-like transposons of the Maverick/Polinton superfamily, and the suffix -*viricetes* for class taxa
- ***Megaviricetes***: from Greek μέγας [mégas], meaning large. Large refers to the extremely long genomes of viruses in this taxon, "*Megavirales*" (21), a previously suggested name for this group of viruses; the suffix -*viricetes* denotes class taxa
- ***Miaviricetes***: from ourmiavirus and the suffix -*viricetes* for class taxa
- ***Mindivirales***: from a reference to Leonard Mindich, who contributed significantly to cystovirid research, and the suffix -*virales* for order taxa
- ***Mitoviridae***: after *Mitovirus* and the suffix -*viridae* for family taxa
- ***Monodnaviria***: consists of a portmanteau of Greek μόνος [mónos], meaning single (refers to single-stranded DNA) and DNA, and the suffix -*viria* for realm taxa
- ***Mouviricetes***: after French mou, meaning flaccid (flacher) and the suffix -*viricetes* for class taxa
- ***Nodamuvirales***: a contraction of Nodamura virus and the suffix -*virales* for order taxa
- ***Nucleocytoviricota***: from nucleocytoplasmic large DNA viruses (NCLDVs), the current unofficial name for this group of viruses, and the suffix -*viricota* for phylum taxa
- ***Orthornavirae***: from Greek ὀρθός [orthós] meaning straight and the suffix -*virae* for kingdom taxa
- ***Ourlivirales***: consists of a portmanteau of ourmiavirus-like and the suffix -*virales* for order taxa
- ***Papovaviricetes***: reinstates word stem papova (former "*Papovaviridae,*" which included both polyomaviruses and papillomaviruses); the suffix -*viricetes* denotes class taxa
- ***Pararnavirae***: from Greek παρά [pará] meaning besides/next to and RNA and the suffix -*virae* for kingdom taxa
- ***Patatavirales***: from Italian patata meaning potato (refers to potato virus Y) and the suffix -*virales* for order taxa

- ***Peploviricota***: to honor the name for a higher-rank taxon including herpesviruses proposed by Lwoff and Tournier in 1966 ("Peplovirales" from Greek πέπλος [peplos], meaning garment that refers to the unique tegument of herpesviruses) for the "LHT system" (10-12); the suffix -*viricota* denotes phylum taxa
- ***Petitvirales***: from French petit, meaning small (micro) and the suffix -*virales* for order taxa
- ***Phixviricota***: consists of a portmanteau of "phage ΦX174" and the suffix -*viricota* for phylum taxa
- ***Piccovirales***: from Italian piccolo, meaning small (parvus), and the suffix -*virales* for order taxa
- ***Pimascovirales***: consists of a portmanteau of pitho-, irido-, marseille-, and ascoviruses, and the suffix -*virales* for order taxa
- ***Pisoniviricetes***: consists of a portmanteau of the names of the founding orders (*Picornavirales*, *Sobelivirales*, *Nidovirales*) and the suffix -*viricetes* for class taxa
- ***Pisuviricota***: consists of a portmanteau of "picornavirus supergroup" and the suffix -*viricota* for phylum taxa
- ***Pokkesviricetes***: from Middle English pokkes, meaning pox and the suffix -*viricetes* for class taxa
- ***Polivirales***: consists of a portmanteau of polinton-like virus and the suffix -*virales* for order taxa
- ***Preplasmiviricota***: consists of a portmanteau of precursor of certain plasmids and the suffix -*viricota* for phylum taxa
- ***Priklausovirales***: from Lithuanian priklausomas, meaning dependent, a tongue-in-cheek reference to the included family *Lavidaviridae* (large virus dependent associated); the suffix -*virales* denotes order taxa
- ***Quintoviricetes***: after Galician quinto, meaning fifth (a reference to Fifth disease, a disease caused by parvovirus B19), and the suffix -*viricetes* for class taxa
- ***Reovirales***: after *Reovirales*, assuming that *Reoviridae* will have to promoted shortly to accommodate the rapidly expanding diversity of this taxon; the suffix -*virales* denotes order taxa
- ***Resentoviricetes***: derived from respiratory enteric orphan (also the phrase that gave rise to the word stem reo in reoviruses) and the suffix -*viricetes* for class taxa
- ***Revtraviricetes***: consists of a portmanteau of reverse transcriptase and the suffix -*viricetes* for class taxa
- ***Rowavirales***: after Wallace P. Rowe†, one of the co-discoverers of adenovirids in 1953 (22); the suffix -*virales* denotes order taxa
- ***Saleviricota***: after Italian sale, meaning salt (refers to the halophilic hosts of most pleolipoviridids); the suffix -*viricota* denotes phylum taxa
- ***Sangervirae***: after Frederick Sanger†, who used "phage ΦX174" to determine the first-ever DNA genome sequence (23), and the suffix -*virae* for kingdom taxa
- ***Sepolyvirales***: after SE [Stewart & Eddy] polyoma, the first designation for the first discovered polyomavirus (now murine polyomavirus); the suffix -*virales* denotes order taxa
- ***Shotokuvirae***; after Japanese Empress Shōtoku (称徳天皇), aka Kōken (孝謙天皇)†, who wrote a poem that is possibly the first written record about a plant disease that was

likely caused by a geminivirus (CRESS-DNA virus) (24); the suffix -*virae* denotes kingdom taxa

- ***Sinhaliviridae***: consists of a portmanteau of *Sinaivirus* and *Halictivirus* and the suffix -*viridae* for family taxa
- ***Sobelivirales***: consists of a portmanteau of sobemovirus-like and the suffix -*virales* for order taxa
- ***Stellavirales***: from Latin stella meaning star (a reference to astroviruses; astro also means star); the suffix -*virales* denotes order taxa
- ***Stelpaviricetes***: consists of a portmanteau of the names of the founding orders (*Stellavirales*, *Patatavirales*) and the suffix -*viricetes* for class taxa
- ***Tectiliviricetes***: from tectivirid-like and the suffix -*viricetes* for class taxa
- ***Tolivirales***: consists of a portmanteau of tombusvirus-like and the suffix -*virales* for order taxa
- ***Tolucaviricetes***: consists of a portmanteau of tombusviruses, luteoviruses, and carmotetraviruses, and the suffix -*viricetes* for class taxa
- ***Trapavirae***: after Trapani, Italy, where Halorubrum pleomorphic virus 1 (HRPV-1, member of the type species of *Alphapleolipovirus*, *Pleolipoviridae*) was discovered (25); the suffix -*virae* denotes kingdom taxa
- ***Tubulavirales***: from tubular, a reference to the virion morphology of some viruses in this taxon, and the suffix -*virales* for order taxa
- ***Uroviricota***: to honor the suggested name for a higher-rank taxon for tailed phages proposed by Lwoff and Tournier in 1966 ("Urovirales" from Greek οὐρά [ourá/uros, meaning tail) for the "LHT system" (10-12); the suffix -*viricota* denotes phylum taxa
- ***Varidnaviria***: consists of a portmanteau of various DNA viruses and the suffix -*viria* for realm taxa
- ***Vidaverviricetes***: in honor of Anne K. Vidaver, who co-discovered Pseudomonas phage phi6 (26); the suffix -*viricetes* denotes class taxa
- ***Vinavirales***; named after Viña del Mar, Chile, where "phage PM2" was first isolated (27); the suffix -*virales* denotes order taxa
- ***Wolframvirales***: a tongue-in-cheek reference to the element wolfram (W). The type narnavirus was found after sequencing "W dsRNA" in baker's yeast (*Saccharomyces cerevisiae*); the suffix -*virales* denotes order taxa
- ***Zurhausenvirales***: to honor Harald zur Hausen, who discovered the connection of papillomaviruses and cervical cancer; the suffix -*virales* denotes order taxa

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