



# VIRUS RESEARCH

An International Journal of Molecular and Cellular Virology

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ISSN: 0168-1702

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Follow internationally accepted rules and conventions: use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI.

## Virus nomenclature

Each virus should be identified at least once, preferably in the 'Introduction' or 'Materials and Methods' section, using formal family, genus, and species terms and where possible by using a precise strain designation term as developed by an internationally recognized specialty group or culture collection. Please note that the word type is not used before species designations that include a number. Formal terms used for virus families, genera, and species should be those approved by the International Committee on Taxonomy of Viruses (ICTV): Viral Taxonomy. Ninth Report of the International Committee on Taxonomy of Viruses (ICTV) by Andrew M. Q. King, Elliot J. Lefkowitz, Michael J. Adams and Eric. B. Carstens. October 2011 This volume also includes standard abbreviations for species. Once formal taxonomic names have been given in a paper, vernacular terms may be used.

## Formal taxonomic nomenclature

In formal taxonomic usage, the first letters of virus order, family, subfamily, genus and species names are capitalized and the terms are printed in italics. Other words in the species names are not capitalized unless they are proper nouns or parts of nouns, for example *West Nile virus*. In formal usage, the name of the taxon should precede the term for the taxonomic unit; for example; "the family *Paramyxoviridae*," "the genus *Morbillivirus*." The following represent examples of full formal taxonomic terminology:

1. Order *Mononegavirales*, family *Rhabdoviridae*, genus *Lyssavirus*, species *Rabies virus*.
2. Family *Poxviridae*, subfamily *Chordopoxvirinae*, genus *Orthopoxvirus*, species *Vaccinia virus*.
3. Family *Picornaviridae*, genus *Enterovirus*, species *Poliovirus*.

#### 4. Family *Bunyaviridae*, genus *Tospovirus*, species *Tomato spotted wilt virus*.

##### *Vernacular Taxonomic Nomenclature*

In formal vernacular usage, virus order, family, subfamily, genus and species names are written in lower case Roman script: they are not capitalized, nor are they printed in italics or underlined. In informal usage, the name of the taxon should not include the formal suffix, and the name of the taxon should follow the term for the taxonomic unit; for example "the picornavirus family, the enterovirus genus." One particular source of ambiguity in vernacular nomenclature lies in the common use of the same root terms in formal family, genus or species names. Imprecision stems from not being able to easily identify in vernacular usage which hierarchical level is being cited. For example, the vernacular name "*paramyxovirus*" might refer to the family *Paramyxoviridae*, or one species in the genus *Respirovirus*, such as *Human parainfluenza virus 1*. The solution in vernacular usage is to avoid "jumping" hierarchical levels and to add taxon identification wherever needed. For example, when citing the taxonomic placement of *Human parainfluenza virus 1*, taxon identification should always be added: *Human Parainfluenza virus 1* is a species in the genus *Respirovirus*, family *Paramyxoviridae*. In this example, as is usually the case, adding the information that this virus is also a member of the subfamily *Paramyxovirinae* and the order *Mononegavirales* is unnecessary.

It should be stressed that italics and capital initial letters need be used only if the species name refers to the taxonomic category. When the name refers to viral objects such as virions present in a preparation or seen in an electron micrograph, italics and capital initial letters are not needed and the names are written in lower case Roman script. This also applies when the names are used in adjectival form, for instance tobacco mosaic virus polymerase. The use of italics when referring to the name of a species as a taxonomic entity signals that it has the status of an officially recognized species. Please consult: *Viral Taxonomy. Ninth Report of the International Committee on Taxonomy of Viruses (ICTV)* by Andrew M. Q. King, Elliot J. Lefkowitz, Michael J. Adams and Eric. B. Carstens (October 2011) to ascertain which names have been approved as official species names. When the taxonomic status of a new putative species is uncertain or its position within an established genus has not been clarified, it is considered a tentative species and its name is not written in italics although its initial letter is capitalized.

*Origins of bioreagents* - The origins of bioreagents should be described adequately, including citation of culture collections, companies, or colleagues from whom the bioreagents were obtained. If viruses were collected from nature, the collecting site and procedure should also be properly described. Bioreagents include but are not necessarily limited to virus strains and species, antibodies, and cell lines.

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Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2010. The art of writing a scientific article. *J. Sci. Commun.* 163, 51–59.

Reference to a book:

Strunk Jr, W., White, E.B., 2000. *The Elements of Style*, fourth ed. Longman, New York.

Reference to a chapter in an edited book:

Mettam, G.R., Adams, L.B., 2009. How to prepare an electronic version of your article, in: Jones, B.S., Smith, R.Z. (Eds.), *Introduction to the Electronic Age*. E-Publishing Inc., New York, pp. 281–304.

Reference to a website:

Cancer Research UK, 1975. Cancer statistics reports for the UK. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/> (accessed 13 March 2003).

Reference to a dataset:

[dataset] Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T., 2015. Mortality data for Japanese oak wilt disease and surrounding forest compositions. Mendeley Data, v1. <https://doi.org/10.17632/xwj98nb39r.1>.

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