



TABLE OF CONTENTS

●	Description	p.1
●	Audience	p.1
●	Impact Factor	p.1
●	Abstracting and Indexing	p.2
●	Editorial Board	p.2
●	Guide for Authors	p.4



ISSN: 0166-0934

DESCRIPTION

The Journal of Virological Methods focuses on original, high quality research papers that describe novel and comprehensively tested methods which enhance human, animal, plant, bacterial or environmental virology and prions research and discovery.

The methods may include, but not limited to, the study of:

Viral components and morphology Virus isolation, propagation and development of viral vectors Viral pathogenesis, oncogenesis, vaccines and antivirals Virus replication, host-pathogen interactions and responses Virus transmission, prevention, control and treatment Viral metagenomics and virome Virus ecology, adaption and evolution Applied virology such as nanotechnology Viral diagnosis with novelty and comprehensive evaluation

We seek articles, systematic reviews, meta-analyses and laboratory protocols that include comprehensive technical details with statistical confirmations that provide validations against current best practice, international standards or quality assurance programs and which advance knowledge in virology leading to improved medical, veterinary or agricultural practices and management.

AUDIENCE

All virologists

IMPACT FACTOR

2018: 1.746 © Clarivate Analytics Journal Citation Reports 2019

ABSTRACTING AND INDEXING

Current Contents - Life Sciences
Science Citation Index
Abstracts on Hygiene and Communicable Diseases
PubMed/Medline
Reference Update
Tropical Diseases Bulletin
Pascal Francis
Elsevier BIOBASE
Scopus

EDITORIAL BOARD

Editor-in-Chief

Paul K.S. Chan, Chinese University of Hong Kong, Shatin, New Territories, New Territories, Hong Kong

Editorial Assistant

Wendy Ching Sze Ho

Editors

Paul Chu, Institute of Microbiology Chinese Academy of Sciences, Zhong-Guan-Cun, Haidian District, 100080, Beijing, China

Irit Davidson, Kimron Veterinary Institute, 50250, Bet Dagan, Israel

Nicola Decaro, Università degli Studi di Bari Aldo Moro, Department of Veterinary Medicine, Str. Prov. per Casamassima Km 3, Valenzano, 70010, Bari, Italy

Priscilla F. Gerber, University of New England School of Environmental and Rural Science, Armidale, 2351, Australia

Tuck-Weng Kok, The University of Adelaide School of Biological Sciences, Adelaide, South Australia, Australia

Duncan R. Smith, Mahidol University, Salaya Campus, 25/25 Phuttamonthon Sai 4, Salaya, Thailand

Editorial Board

T. Ait-Ali, The University of Edinburgh The Roslin Institute, Roslin, United Kingdom

P. Auewarakul, Mahidol University, Salaya, Thailand

K. Banyai, Hungarian Academy of Sciences, Budapest, Hungary

A.D.T. Barrett, University of Texas Medical Branch Department of Pathology, Galveston, Texas, United States

M.C.W. Chan, Chinese University of Hong Kong

R. Chan, Dept. of Paediatrics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, China

Z. Chen, Chinese University of Hong Kong Department of Microbiology, Hong Kong, Hong Kong

J. Cowley, Animal, Food & Health Sciences, Food Futures National Flagship, Commonwealth Scientific and Industrial Research Organisation (CSIRO), St. Lucia, Queensland, Australia

L. Darwich, Autonomous University of Barcelona, Barcelona, Spain

A. Davidson, University of Bristol, Bristol, United Kingdom

G. Elia, University of Bari, Bari, Italy

B. Grasland, Anses Maisons-Alfort Laboratory for Animal Health, Maisons Alfort, France

M. Grce, Laboratory of Molecular Virology and Bacteriology, Division of Molecular Medicine, Institute Rudjer Boskovic, Bijenicka, Croatia

A. Hadidi

J-T. Horng, Chang Gung University, Dept. of Biochemistry and Molecular Biology, Taoyuan, Taiwan, ROC

J. Kreuze, International Potato Center, Lima, Peru

Chr. Lacomme, Science and Advice for Scottish Agriculture, Edinburgh, United Kingdom

D. Lefebvre, CODA-CERVA-VAR, Brussel, Belgium

P. Lekcharoensuk, Kasetsart University - Bangkok Campus, Bangkok, Thailand

C. Lim, The University of Adelaide Viral Pathogenesis Research Laboratory, Adelaide University, Australia

A. Lorusso, Zooprophyllactic Institute of Abruzzo and Molise Giuseppe Caporale, Teramo, Italy

H.K. Lu, Dept. of Microbiology and Immunology, Peter Doherty Institute, The University of Melbourne, Melbourne, Australia

A. Maeda, Kyoto Sangyo University, Kyoto, Japan

S. Massart, University of Liege Faculty of Gembloux Agro-Bio Tech, Gembloux, Belgium

J. Middeldorp, VU Medical Centre Department of Pathology, Amsterdam, Netherlands

I.K. Mushahwar, Isa K. Mushahwar, Grayslake, Illinois, United States

H. Pappu, Washington State University, Pullman, Washington, United States

K.W. Peng, Mayo Foundation for Medical Education and Research, Rochester, Minnesota, United States

M. Purcell, US Geological Survey Western Fisheries Research Center, United States

M. Ravnikar, National Institute of Biology Department of Biotechnology and Systems Biology, Ljubljana, Slovenia

S. Reid, Animal and Plant Health Agency, Addlestone, United Kingdom
K.S. Sano, Faculty of Medicine, Dept. of Microbiology and Infection Control, Osaka Medical College, Takatsuki, Japan
V. van Santen, Auburn University, Auburn, Alabama, United States
P. Selleck, Commonwealth Scientific and Industrial Research Organisation, Canberra, 3220, Victoria, Australia
D.W. Smith, School of Pathology and Laboratory Medicine, Faculty of Medicine, Dentistry and Health Sciences, University of Western Australia
D. Stone, Centre for Environment Fisheries and Aquaculture Science, Burnham-On-Crouch, United Kingdom
S. Su, Nanjing Agricultural University College of Veterinary Medicine, Nanjing, China
J. Tang, NHS UK
S. Van Borm, Sciensano, Brussel, Belgium
J.R. Wang, National Cheng Kung University Department of Medical Laboratory Science and Biotechnology, Tainan, Taiwan
R.J. Whitley, University of Alabama at Birmingham, Birmingham, Alabama, United States
D. Williams, Commonwealth Scientific and Industrial Research Organisation, Canberra, Victoria, Australia
C. Xiao, Iowa State University, Ames, Iowa, United States

GUIDE FOR AUTHORS

INTRODUCTION

The Journal of Virological Methods publishes high quality original research papers, systematic reviews and meta-analyses that advance our knowledge for analysis of human, animal, plant and other viruses that significantly improve medical, veterinary and agricultural practice. This includes development, optimisation and validation of novel techniques and tools for studying viral antigens, markers, morphology, genomics, functions, replication cycle, evolution, transmission, pathogenesis, diagnosis, treatment, prevention and control of viral infections.

Types of paper

Research articles should generally not exceed 25 typewritten pages and should be divided into Summary (on a separate sheet and not exceeding 200 words, followed by 3-6 keywords). Introduction, Materials and Methods, Results, Discussion, Acknowledgements and References.

Short communications, approx. 12 typewritten pages, with a Summary and keywords but without section headings.

Book reviews or meeting reports will be published following invitation from, or by authors first contacting, the Editor-in-Chief, Prof. Paul KS Chan:

Prof. Paul KS Chan
Email: paulkschan@cuhk.edu.hk
Tel: 852-2632 3333
Fax: 852-2647 3227

Please note there are different Instructions to Authors for VIROLOGY PROTOCOLS. These are included at the end of the "Preparation" section.

Submission checklist

You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:

- E-mail address
- Full postal address

All necessary files have been uploaded:

Manuscript:

- Include keywords
- All figures (include relevant captions)
- All tables (including titles, description, footnotes)
- Ensure all figure and table citations in the text match the files provided
- Indicate clearly if color should be used for any figures in print

Graphical Abstracts / Highlights files (where applicable)

Supplemental files (where applicable)

Further considerations

- Manuscript has been 'spell checked' and 'grammar checked'
- All references mentioned in the Reference List are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- A competing interests statement is provided, even if the authors have no competing interests to declare
- Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements

For further information, visit our [Support Center](#).

Authors must list at least 4 candidate referees (name and email address). These persons should be international experts in the specific field and able to provide an independent assessment of your work

BEFORE YOU BEGIN

Ethics in publishing

Please see our information pages on [Ethics in publishing](#) and [Ethical guidelines for journal publication](#).

Ethical Policy: human subjects and animals

The research described in papers submitted to the *Journal of Virological Methods* that involve the use of human beings, including healthy volunteers, must adhere to the principles of the Declaration of Helsinki as well as to Title 45, U.S. Code of Federal Regulations, Part 46, Protection of Human Subjects, Revised November 13, 2001, effective December 13, 2001. Research involving animals must adhere to the American Physiological Society's Guiding Principles in the Care and Use of Animals. All investigations involving humans or animals that are reported in the journal must be conducted in conformity with these principles, and that a statement of protocol approval from an * IRB or * * IACUC or equivalent is included in the methods section of the paper. Manuscripts reporting the results of experiments on human subjects, including healthy volunteers, must include a statement that informed consent was obtained.

* IRB = Institutional Review Board

* * IACUC = Institutional Animal Care and Use Committee

Declaration of interest

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. [More information](#).

Submission declaration and verification

Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see '[Multiple, redundant or concurrent publication](#)' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service [Crossref Similarity Check](#).

Please note that manuscripts which have been published previously in another language cannot be considered as original work and will not be accepted for publication.

Preprints

Please note that [preprints](#) can be shared anywhere at any time, in line with Elsevier's [sharing policy](#). Sharing your preprints e.g. on a preprint server will not count as prior publication (see '[Multiple, redundant or concurrent publication](#)' for more information).

Use of inclusive language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

Author contributions

For transparency, we encourage authors to submit an author statement file outlining their individual contributions to the paper using the relevant CRediT roles: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources;

Software; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing. Authorship statements should be formatted with the names of authors first and CRediT role(s) following. [More details and an example](#)

Authorship

The inclusion of statements such as "these two (or more) authors contributed equally" cannot not be accommodated. Only one first author is allowed and one corresponding author.

Changes to authorship

Authors are expected to consider carefully the list and order of authors **before** submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only **before** the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the **corresponding author**: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors **after** the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

Copyright

Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see [more information](#) on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. [Permission](#) of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has [preprinted forms](#) for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' ([more information](#)). Permitted third party reuse of gold open access articles is determined by the author's choice of [user license](#).

Author rights

As an author you (or your employer or institution) have certain rights to reuse your work. [More information](#).

Elsevier supports responsible sharing

Find out how you can [share your research](#) published in Elsevier journals.

Role of the funding source

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Funding body agreements and policies

Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of [existing agreements](#) are available online.

Open access

This journal offers authors a choice in publishing their research:

Subscription

- Articles are made available to subscribers as well as developing countries and patient groups through our [universal access programs](#).
- No open access publication fee payable by authors.
- The Author is entitled to post the [accepted manuscript](#) in their institution's repository and make this public after an embargo period (known as green Open Access). The [published journal article](#) cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

Gold open access

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following [Creative Commons user licenses](#):

Creative Commons Attribution (CC BY)

Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)

For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is **USD 2450**, excluding taxes. Learn more about Elsevier's pricing policy: <https://www.elsevier.com/openaccesspricing>.

Green open access

Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our [open access page](#) for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. [Find out more](#).

This journal has an embargo period of 12 months.

Elsevier Researcher Academy

[Researcher Academy](#) is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

language and language services

Please write your text in good English (American or British usage is accepted, but not a mixture of these) avoid the use of split infinitives, and do not use the first person pronoun. Authors who require information about language editing and copyediting services pre- and post-submission please visit <https://www.elsevier.com/languageediting> or our customer support site at service.elsevier.com for more information.

Submission

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

Referees

Please submit the names and institutional e-mail addresses of several potential referees. For more details, visit our [Support site](#). Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.

PREPARATION

Peer review

This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. [More information on types of peer review](#).

Use of word processing software

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the [Guide to Publishing with Elsevier](#)). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure

Subdivision - numbered sections

Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

Introduction

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods

Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

Results

Results should be clear and concise.

Discussion

This should explore the significance of the results of the work, not repeat them. The Results and Discussion section must be written separately. Avoid extensive citations and discussion of published literature.

Conclusions

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Essential title page information

- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Highlights

Highlights are mandatory for this journal as they help increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: [example Highlights](#).

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Graphical abstract

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view [Example Graphical Abstracts](#) on our information site.

Authors can make use of Elsevier's [Illustration Services](#) to ensure the best presentation of their images and in accordance with all technical requirements.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article. Avoid the excessive use of abbreviations in the text and do not use unconventional acronyms.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Nomenclature and units.

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): Fauquet, C.M., Mayo, M.A., Maniloff, J., Desselberger, U., and Ball, L.A. (2005) *Virus Taxonomy, Classification and Nomenclature of Viruses*. Eighth ICTV Report, Academic Press, an imprint of Elsevier. 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:

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

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Artwork

Electronic artwork

General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.
- Ensure that color images are accessible to all, including those with impaired color vision.

A detailed [guide on electronic artwork](#) is available.

You are urged to visit this site; some excerpts from the detailed information are given here.

Formats

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

EPS (or PDF): Vector drawings, embed all used fonts.

TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.

TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.

TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

Please do not:

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

Color artwork

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. [Further information on the preparation of electronic artwork.](#)

Figure captions

Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References

Citation in text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Reference links

Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is highly encouraged.

A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. *Journal of Geophysical Research*, <https://doi.org/10.1029/2001JB000884>. Please note the format of such citations should be in the same style as all other references in the paper.

Web references

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue

Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support [Citation Style Language styles](#), such as [Mendeley](#). Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. [More information on how to remove field codes from different reference management software](#).

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:

<http://open.mendeley.com/use-citation-style/journal-of-virological-methods>

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference formatting

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following examples:

Reference style

Text: All citations in the text should refer to:

1. *Single author:* the author's name (without initials, unless there is ambiguity) and the year of publication;
2. *Two authors:* both authors' names and the year of publication;
3. *Three or more authors:* first author's name followed by 'et al.' and the year of publication.

Citations may be made directly (or parenthetically). Groups of references can be listed either first alphabetically, then chronologically, or vice versa.

Examples: 'as demonstrated (Allan, 2000a, 2000b, 1999; Allan and Jones, 1999)... Or, as demonstrated (Jones, 1999; Allan, 2000)... Kramer et al. (2010) have recently shown ...'

List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.

Examples:

Reference to a journal publication:

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. <https://doi.org/10.1016/j.Sc.2010.00372>.

Reference to a journal publication with an article number:

Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2018. The art of writing a scientific article. *Heliyon.* 19, e00205. <https://doi.org/10.1016/j.heliyon.2018.e00205>.

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>.

Journal abbreviations source

Journal names should be abbreviated according to the [List of Title Word Abbreviations](#).

Video

Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including [ScienceDirect](#). Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our [video instruction pages](#). Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

Data visualization

Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions [here](#) to find out about available data visualization options and how to include them with your article.

Supplementary material

Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

Research data

This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the [research data](#) page.

Data linking

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the [database linking page](#).

For [supported data repositories](#) a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

Mendeley Data

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to *Mendeley Data*. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the [Mendeley Data for journals page](#).

Data in Brief

You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for *Data in Brief* as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to *Data in Brief* where it will be editorially reviewed and published in the open access data journal, *Data in Brief*. Please note an open access fee of 600 USD is payable for publication in *Data in Brief*. Full details can be found on the [Data in Brief website](#). Please use [this template](#) to write your Data in Brief.

Data statement

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the [Data Statement page](#).

Virology Protocols

Protocols are to be submitted in the same way as regular articles

Organization of a Protocol

Title page:

The title page should contain the following items: (i) complete title (preferably no chemical formulas or arbitrary abbreviations); (ii) full names of all authors; (iii) complete affiliations of all authors; (iv) the number of text pages of the whole manuscript (including figures and tables) and the number of figures and tables; (v) the name and complete address of the corresponding author (including telephone number, facsimile number and electronic mail address); (vi) acknowledgements.

Abstract:

This should provide a concise description of the purpose of the Protocol and should not exceed 200 words.

Keywords:

Please provide 3 - 6 keywords.

Type of research:

In this section, relevant published studies should be described concisely in list form preceded by Roman lower case numeral characters. The published studies should be appropriately cited.

Time required.

An estimation of the time required to run the protocol should be given per separate step and for the whole protocol.

Materials

The materials used should be described in sufficient detail for the protocol to be replicated. Animals used should include information on breed, breeder, sex, age, weight and the maintenance conditions. Furthermore, this section should be divided into two subsections: (i) Special equipment and (ii) Chemicals and reagents. Any special equipment required should be mentioned, including details of model type/number and (international) supplier. The source or supplier of any special equipment should also be stated, in parentheses, after mentioning the equipment for the first time. A listing (preceded by dashes) of chemicals and reagents used in the protocol, should be provided, if applicable. Special chemicals and drugs with their sources or suppliers should be grouped under a separate subheading ("Chemicals" or "Drugs"). For drugs, generic names should be used; trade names may be given in brackets where the drug is first mentioned. In case of new drugs or chemicals, a full chemical description (formula) should be given. The form of the drug used should be indicated.

Detailed procedure.

This section should include an extensive, detailed and stepwise description of the procedures used. The individual steps should be described in list form preceded by Roman lower case numeral characters and correspond with the steps described under Quick procedure. All companies from which chemicals or materials were obtained should be listed with their full address.

Results.

In this section the expected results should be described clearly and concisely, and in logical order without extended discussion of their significance. Results should usually be presented descriptively and be supplemented by photographs or diagrams.

Discussion.

This section should present an assessment of the protocol, problems which may be encountered, and alternative or support protocols. This section should be divided into two parts: (i) Trouble-shooting and (ii) Alternative and Support Protocols. Troubleshooting: Problems that may have been encountered during any of the procedures should be discussed clearly and concisely, and suitable solutions suggested. Alternative methods for replacing certain steps in the protocol should be mentioned in sufficient detail, and clearly indicating at which point in the protocol they should be applied. Alternative and Support Protocols: If applicable, alternative or support protocols should be mentioned, clearly stating the advantages and disadvantages of such protocols and be accompanied by appropriate citation of the literature.

Essential literature references.

This should mention certain essential reading divided into original papers, book chapters and review papers. Do not cite the full reference, but just list the reference number. All references cited in the text should be listed at the end of the manuscript, arranged in alphabetical order of the author's surname.

Quick procedure.

This section should describe the protocol in a concise, stepwise manner. The individual steps should be described in list form preceded by roman lower case numeral characters and correspond with the steps described under Detailed procedure. This section should contain basic, essential information for the protocol to be replicated successfully.

Illustrations.

Follow the standard article guidelines for instructions on illustrations.

AFTER ACCEPTANCE

Online proof correction

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

Offprints

The corresponding author will, at no cost, receive a customized [Share Link](#) providing 50 days free access to the final published version of the article on [ScienceDirect](#). The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's [Author Services](#). Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

AUTHOR INQUIRIES

Visit the [Elsevier Support Center](#) to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.

You can also [check the status of your submitted article](#) or find out [when your accepted article will be published](#).

© Copyright 2018 Elsevier | <https://www.elsevier.com>