



VIRUS RESEARCH

An International Journal of Molecular and Cellular Virology

AUTHOR INFORMATION PACK

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.5



ISSN: 0168-1702

DESCRIPTION

Virus Research provides a means of fast publication for original papers on fundamental research in **virology**. Contributions on new developments concerning **virus structure, replication, pathogenesis** and **evolution** are encouraged. These include reports describing virus **morphology**, the function and **antigenic analysis** of virus structural components, virus **genome** structure and expression, analysis on virus **replication processes**, virus evolution in connection with **antiviral interventions**, effects of viruses on their **host cells**, particularly on the **immune system**, and the pathogenesis of virus infections, including oncogene activation and transduction. The journal also publishes review articles on topics of current interest, special issues focused on a defined subject, and occasional book reviews and meeting reports.

Benefits to authors

We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our [author services](#).

Please see our [Guide for Authors](#) for information on article submission. If you require any further information or help, please visit our [Support Center](#)

AUDIENCE

All virologists

IMPACT FACTOR

2016: 2.628 © Thomson Reuters Journal Citation Reports 2017

ABSTRACTING AND INDEXING

BIOSIS
Elsevier BIOBASE
Chemical Abstracts
Current Contents/Life Sciences
MEDLINE®
EMBASE
Pascal et Francis (INST-CNRS)
Reference Update
Scopus

EDITORIAL BOARD

Editor-in-Chief:

Ben Berkhout, Laboratory of Experimental Virology, Academic Medical Center of the University of Amsterdam, Meibergdreef 15, K3-110, 1105 AZ, Amsterdam, Netherlands

RNA Viruses and Virus Evolution

Esteban Domingo, Centro de Biología Molecular "Severo Ochoa", Universidad Autónoma de Madrid, Cantoblanco, 28049, Madrid, Spain

RNA Viruses and Virus-Host Interaction

Adolfo Garcia-Sastre, Ph D., Department of Microbiology, Department of Medicine, Division of Infectious Diseases, Global Health and Emerging Pathogens Institute, Mount Sinai School of Medicine, 1468 Madison Avenue, New York, NY 10029, USA

DNA Viruses

Xiang-Jin Meng, M.D., Ph.D., Department of Biomedical Sciences and Pathobiology, Virginia-Maryland College of Veterinary Medicine, Virginia Polytechnic Institute & State University, CRC-Integrated Life Sciences Bldg, 1981 Kraft Drive, Blacksburg, VA 20601-01913, USA

Plant and Fungal Viruses

Nobuhiro Suzuki, Ph D., Institute of Plant Science and Resources (IPSR), Okayama University, Chou 1-20-1, Kurashiki 710-0046 Okayama, Japan

RNA Viruses, Immune Responses, and Virus-Host Interaction

Volker Thiel, Inst. of Virology and Immunology, Vetsuisse Faculty, Universität Bern, Länggassstrasse 122, CH-3012, Bern, Switzerland

Founding Editor:

B.W.J. Mahy

Editorial Board:

F. Almazan, Centro Nacional de Biotecnología-CSIC, Madrid, Spain

C. Alonso, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria INIA, Madrid, Spain

W. Atwood, Brown University, Providence, Rhode Island, USA

L. Banks, International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy

A.D.T. Barrett, University of Texas Medical Branch, Galveston, Texas, USA

M. Beer, Friedrich-Loeffler-Institut, Greifswald-Insel Riems, Germany

S-E Behrens, Martin Luther University Halle-Wittenberg, Halle/Saale, Germany

M. Borca, United States Department of Agriculture, Greenport, New York, USA

M Brinton, Georgia State University, Atlanta, Georgia, USA

W. Britt, University of Alabama at Birmingham, Birmingham, Alabama, USA

I-R. Choi, International Rice Research Institute (IRRI), Metro Manila, Philippines

R.W. Compans, Emory University, Atlanta, Georgia, USA

R.C. Condit, University of Florida, Gainesville, Florida, USA

K. Conzelmann, Ludwig-Maximilians-Universität München (LMU), Munich, Germany

R.J. de Groot, Utrecht University, Utrecht, Netherlands

R.L. de Swart, Erasmus University, Rotterdam, The Netherlands

U. Desselberger, University of Cambridge (Addenbrooke's Hospital), Cambridge, UK

R. Dijkman, University of Bern, Switzerland

W. Doerfler, Universität zu Köln, Köln, Germany

J.H. Elder, The Scripps Research Institute, La Jolla, California, USA

K. Faaberg, United States Department of Agriculture, Ames, Iowa, USA

H. Feldmann, National Institutes of Health (NIH), Hamilton, Montana, USA
B. Fleckenstein, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany
R. Flores, Consejo Superior de Investigaciones Científicas (CSIC), Valencia, Spain
P. Fortes, Center for Applied Medical Research, Universidad de Navarra, Pamplona, Spain
R.A.M. Fouchier, Erasmus MC: Universitair Medisch Centrum Rotterdam, Rotterdam, Netherlands
L. Frappier, University of Toronto, Toronto, Ontario, Canada
U. Garaigorta, Centro Nacional de Biotecnología (CNB-CSIC), Madrid, Spain
J.A. Garcia, Consejo Superior de Investigaciones Científicas (CSIC), Madrid, Spain
V.J. García, University of North Carolina, Chapel Hill, North Carolina, USA
P. Gastaminza, Centro Nacional de Biotecnología-CSIC, Madrid, Spain
A. Gatignol, McGill University, Montréal, Quebec, Canada
A.E. Gorbalenya, Leids Universitair Medisch Centrum (LUMC), Leiden, Netherlands
E. Gowans, University of Adelaide, Woodville South, Australia
D.E. Griffin, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA
B.L. Haagmans, Erasmus MC: Universitair Medisch Centrum Rotterdam, Rotterdam, Netherlands
R.N. Harty, University of Pennsylvania, Philadelphia, Pennsylvania, USA
M. Heise, University of North Carolina School of Medicine, Chapel Hill, North Carolina, USA
M. Ishikawa, Institute of Agrobiological Sciences, Tsukuba, Japan
S. Jameel, ICGEB - India, New Delhi, India
C. Jones, Oklahoma State University, Stillwater, Oklahoma, USA
I. Jones, University of Reading, Reading, UK
A. Kajon, Lovelace Respiratory Research Institute, Albuquerque, New Mexico, USA
Y. Kawaguchi, University of Tokyo, Minato-Ku, Japan
K.-H. Kim, Seoul National University (SNU), Seoul, The Republic of Korea
P. Kinchington, University of Pittsburgh, Pittsburgh, Pennsylvania, USA
E.J. Kremer, Centre National de la Recherche Scientifique (CNRS), Montpellier, France
S. Kunz, Centre Hospitalier Universitaire Vaudois Lausanne (CHUV), Lausanne, Switzerland
K. Leppard, University of Warwick, Coventry, UK
S.A. Lommel, North Carolina State University, Raleigh, North Carolina, USA
J.E. Ludert, Cinvestav, Mexico
S. Makino, University of Texas Medical Branch, Galveston, Texas, USA
A. Marcello, International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy
E. Martínez-Salas, Centro de Biología Molecular Severo Ochoa (CSIC-UAM), Madrid, Spain
L. Martínez-Sobrido, University of Rochester Medical Center, Rochester, New York, USA
C. Masuta, Hokkaido University, Sapporo, Japan
M.G. Mateu, Universidad Autónoma de Madrid, Madrid, Spain
J. McCauley, The Francis Crick Institute, London, UK
J.A. Melero, Instituto de Salud Carlos III, Madrid, Spain
L. Menendez-Arias, Centro de Biología Molecular Severo Ochoa, Madrid, Spain
C. Meyers, Penn State University College of Medicine, Hershey, Pennsylvania, USA
K. Mise, Kyoto University, Kyoto, Japan
P.S. Moore, University of Pittsburgh, Pittsburgh, Pennsylvania, USA
I. Morgan, Virginia Commonwealth University, Richmond, Virginia, USA
M.P. Murtaugh, University of Minnesota, St. Paul, Minnesota, USA
H. Nauwynck, Universiteit Gent, Merelbeke, Belgium
K. Ohshima, Saga University, Honjo-machi, Japan
D.A. Ornelles, Wake Forest School of Medicine, Winston-Salem, North Carolina, USA
F.A. Osorio, University of Nebraska at Lincoln, Lincoln, Nebraska, USA
N. Osterrieder, Freie Universität Berlin, Berlin, Germany
V. Pallas, CSIC - Universidad Politécnica de Valencia, Valencia, Spain
P. Palukaitis, Scottish Crop Research Institute, Invergowrie, Dundee, UK
A.O. Pasternak, Universiteit van Amsterdam, Amsterdam, Netherlands
M. Peeters, INSERM and University of Montpellier, France
P. Pellett, Wayne State University School of Medicine, Detroit, Michigan, USA
C. Perales, Hospital Universitario Vall d'Hebron, Barcelona, Spain
S. Perlman, University of Iowa, Iowa City, Iowa, USA
T. Pietschmann, TWINCORE Centre for Experimental Infection Research, Hannover, Germany
A. Plyusnin, University of Helsinki, Finland
D. Poncet, Institut de Biologie Intégrative de la Cellule, Paris, France
R. Ray, St. Louis University Health Science Center, St. Louis, Missouri, USA
J. Ridpath, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Ames, Iowa, USA
B. Rima, Queen's University Belfast, Belfast, UK
L. Roux, Université de Genève, Genève 4, Switzerland
P. Roy, London School of Hygiene and Tropical Medicine, London, England, UK
L. Ruan, Chinese Center for Disease Control, Beijing, China
S. Samal, University of Maryland, USA
J.T. Sample, Penn State University College of Medicine, Hershey, Pennsylvania, USA

M.J. Sapp, Louisiana State University (LSU) Health Sciences Center, Shreveport, Louisiana, USA
C.S. Schmaljohn, US Army Medical Research Institute for Infectious Diseases, Fort Detrick, Maryland, USA
M. Schnell, Thomas Jefferson University, Philadelphia, Pennsylvania, USA
M. Schweizer, Universität Bern, Bern, Switzerland
A.J. Sinclair, University of Sussex, Falmer, Brighton, England, UK
B. Slagle, Baylor College of Medicine, Houston, Texas, USA
E. Snijder, Leids Universitair Medisch Centrum (LUMC), Leiden, Netherlands
I. Sola, Centro Nacional de Biotecnología, Madrid, Spain
D.C. Stenger, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Parlier, California, USA
M.J. Studdert, University of Melbourne, Parkville, Victoria, Australia
G. Tekes, University of Giessen,
Justus-Liebig-Universität Gießen, Giessen, Germany
M. Turina, Institute for Sustainable Plant Protection, Torino, Italy
A.C. van der Kuyl, Universiteit van Amsterdam, Academisch Medisch Centrum (AMC), Amsterdam, Netherlands
F. van Kuppeveld, Utrecht University, Utrecht, Netherlands
C. van Lint, Université Libre de Bruxelles (ULB), Gosselies, Belgium
M. Vignuzzi, Institut Pasteur, Paris cedex 15, France
V.G. Wilson, Texas A&M University, College Station, Texas, USA
D. Yoo, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA
S. Zuñiga, Centro Nacional de Biotecnología-CSIC, Madrid, Spain
R. Züst, LABOR Spiez, Switzerland

GUIDE FOR AUTHORS

INTRODUCTION

Virus Research provides a means of fast publication for original papers on fundamental research in virology. Contributions on new developments concerning virus structure, replication, pathogenesis and evolution are encouraged. These include reports describing virus morphology, the function and antigenic analysis of virus structural components, virus genome structure and expression, analysis on virus replication processes, virus evolution in connection with antiviral interventions, effects of viruses on their host cells, particularly on the immune system, and the pathogenesis of virus infections, including oncogene activation and transduction. The journal also publishes review articles on topics of current interest, special issues focused on a defined subject, and occasional book reviews and meeting reports.

Types of Papers

Research articles should generally be divided into Summary, Introduction, Materials and Methods, Results, Discussion and Acknowledgements and References.

Short communications, approximately 8 typewritten pages in total, including a summary, illustrations and keywords but written without section headings.

Review articles on topics of current interest in Virology will be published. While some authors will be invited to write reviews, others wishing to contribute a review article are invited to contact Dr. Ben Berkhout at b.berkhout@amc.uva.nl.

Book Reviews or *Meeting Reports*.

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](#).

BEFORE YOU BEGIN

Ethics in publishing

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

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 conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. If there are no conflicts of interest then please state this: 'Conflicts of interest: none'. [More information](#).

No article can be publicised as in the press, or under revision, until the author has received an acceptance letter from the Editor. No prior acceptance pdf should be put online under **any** circumstance.

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 or as part of a published lecture or academic thesis or as an electronic preprint, see '[Multiple, redundant or concurrent publication](#)' section of our ethics policy 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 [CrossCheck](#).

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 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 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 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.

Open access

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- An 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 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 open access publication fee for this journal is **USD 2600**, 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 [green 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 Publishing Campus

The Elsevier Publishing Campus (www.publishingcampus.com) is an online platform offering free lectures, interactive training and professional advice to support you in publishing your research. The College of Skills training offers modules on how to prepare, write and structure your article and explains how editors will look at your paper when it is submitted for publication. Use these resources, and more, to ensure that your submission will be the best that you can make it.

Language (usage and editing services)

Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the [English Language Editing service](#) available from Elsevier's WebShop.

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.

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.

Characters not available on your wordprocessor should not be left open but indicated by a unique code (e.g., alpha, @, #, etc. for the Greek letter α). Such codes should be used consistently throughout the entire text. Please make a list of such codes and provide a key. Do not allow your word processor to introduce word splits.

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.

Please ensure that all manuscript pages are numbered and that the lines on each page are also numbered. This will greatly assist the review process for your paper.

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 detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

Results

Results should be clear and concise.

Discussion

This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. 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.

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. 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. **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.

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.

Highlights

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and 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). You can view [example Highlights](#) on our information site.

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.

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): 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.

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.

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 encouraged.

A DOI can be used to cite and link to electronic articles where an article is in-press and full citation details are not yet known, but the article is available online. 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](#) and [Zotero](#), as well as [EndNote](#). Using the word processor 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.

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/virus-research>

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 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 should be listed first alphabetically, then chronologically.

Examples: 'as demonstrated (Allan, 2000a, 2000b, 1999; Allan and Jones, 1999). 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.

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 files in one of our recommended file formats with a preferred maximum size of 150 MB in total. Any single file should not exceed 50 MB. 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.

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 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](#).

AudioSlides

The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. [More information and examples are available](#). Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

Interactive plots

This journal enables you to show an Interactive Plot with your article by simply submitting a data file. [Full instructions](#).

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 [Webshop](#). Corresponding authors who have published their article 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](#).