## TABLE OF CONTENTS

- Description  p.1  
- Impact Factor  p.1  
- Abstracting and Indexing  p.1  
- Editorial Board  p.1  
- Guide for Authors  p.4

### DESCRIPTION

*Journal of Cardiac Failure* publishes original, peer-reviewed communications of scientific excellence and review articles on clinical research, basic human studies, animal studies, and bench research with potential clinical applications to **heart failure - pathogenesis, etiology, epidemiology, pathophysiological mechanisms**, assessment, prevention, and treatment.

**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](#)

### IMPACT FACTOR

2016: 3.765 © Clarivate Analytics Journal Citation Reports 2017

### ABSTRACTING AND INDEXING

- Chemical Abstracts
- Scopus
- CINAHL
- Cumulative Index to Nursing and Allied Health Literature
- Current Contents / Clinical Medicine
- Index Medicus
- ISI Alerting Services
- Science Citation Index

### EDITORIAL BOARD

*Editor-in-Chief:*

Paul J. Hauptman, MD, Saint Louis University, Saint Louis, MO
Senior Associate Editor
Michael W. Rich, MD, Saint Louis, MO

Associate Editors:
Peter Buttrick, MD, Aurora, CO
John T. Chibnall, PhD, Saint Louis, MO
David Ford, PhD, Saint Louis, MO
Keiichi Fukuda, MD, PhD, Tokyo, Japan
Jalal Ghali, MD, Macon, GA
John Gorcsan III, MD, St. Louis, MO
Douglas S. Lee, MD, PhD, Toronto, ON, Canada
Lars H. Lund, MD, PhD, Stockholm, Sweden
Douglas L. Mann, MD, Saint Louis, MO
Tien Ng, PharmD, Los Angeles, CA
Ken Schechtman, PhD, Saint Louis, MO
Hiroyuki Tsutsui, MD, PhD, Sapporo, Japan
Sue Wingate, PhD, RN, Gaithersburg, MD

Guest Editors
Stephen S. Gottlieb, MD, Baltimore, MD
Nancy K. Sweitzer, MD, PhD, Tucson, AZ

Consulting Editors:
John E. Connett, PhD, Minneapolis, MN
Michael Kuskowski, PhD, Minneapolis, MN
Yuping Wu, PhD, Cleveland, OH

Former Editors-in-Chief:
Jay N. Cohn, MD, Founding Editor, 1994-2001
Barry M. Massie, MD, 2002-2009
Gary S. Francis, MD, 2010-2014

Managing Editor:
Anna Leong, Bethesda, MD

Editorial Board:
A. Ahmed, Birmingham, Alabama, USA
N. Albert, Cleveland, Ohio, USA
J. Aranda, Gainesville, Florida, USA
R. Arena, Chicago, Illinois, USA
S. Arques, Aubagne, France
J.J. Bax, Leiden, Netherlands
B. Blaxall, Cincinnati, Ohio, USA
B. Borlaug, Rochester, Minnesota, USA
A. Boyle, Cleveland, Ohio, USA
S. Chugh, Los Angeles, California, USA
E. Chung, Cincinnati, OH
M. Chung, Lexington, Kentucky, USA
G. Cotter, Durham, North Carolina, USA
P. Eckman, Minneapolis, Minnesota, USA
H. Eisen, Philadelphia, Pennsylvania, USA
S. Epelman, St.Louis, Washington, USA
J. Fang, Cleveland, Ohio, USA
P. Fedak, Calgary, Alberta, Canada
D. Feldman, Minneapolis, Minnesota, USA
G.S. Filippatos, Athens, Greece
P. Fisher, Orlando, FL
J.L. Fleg, Bethesda, Maryland, USA
J.A. Franciosa, New York, New York, USA
N.G. Frangogiannis, New-York, New York, USA
M. Guazzi, Milano, Italy
T. Horwich, Los Angeles, California, USA
J. Howlett, Calgary, Alberta, Canada
D. Ishizawar, Pittsburgh, Pennsylvania, USA
A. Kalogeropoulos, MD, PhD, FASE, Atlanta, GA
S. Katz, New York, New York, USA
K. Khush, Stanford, California, USA
GUIDE FOR AUTHORS

Your Paper Your Way
We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.

To find out more, please visit the Preparation section below.

Introduction
The Journal of Cardiac Failure publishes peer-reviewed manuscripts of interest to clinicians and researchers in the field of heart failure and related disciplines. These include original communications of scientific importance and review articles involving clinical research, health services and outcomes research, animal studies, and bench research with potential clinical applications to heart failure. The Journal also publishes manuscripts that report the design of ongoing clinical trials and editorial perspectives that comment on new developments pertinent to the field of heart failure or manuscripts published in other journals.

Contact details
Authors may send queries concerning the submission process, manuscript status, or journal procedures to the Editorial Office, aleong@hfsa.org.

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.
Human and animal rights
Published research must be in compliance with human studies guidelines and animal welfare regulations. Authors should indicate in the manuscript that human subjects have given informed consent and that the institutional committee on human research has approved the study protocol. Similarly, they should indicate that studies involving experimental animals conform to institutional standards.

Conflict of interest
If a potential conflict exists, its nature should be stated for each author and the information should be outlined in the Disclosure section of the manuscript. When there is a stated potential conflict of interest and the editors consider that it may have relevance to the accompanying paper, a footnote will be added indicating the author(s)' equity interest in or other affiliation with the identified commercial firms.

All potential conflicts of interest must be identified within the text of the manuscript, under the conflicts with interest heading. This includes relationships with pharmaceutical and biomedical device companies or other corporations whose products or services are related to the subject matter of the article. Such relationships include, but are not limited to, employment by an industrial concern, equity or stock ownership by authors or family member, membership on a standing advisory council or committee, being on the board of directors or publicly associated with the company or its products. Other areas of real or perceived conflict of interest could include receipt of honoraria or consulting fees or receiving grants or funds from such corporations or individuals representing such corporations. See also http://www.elsevier.com/conflictssofinterest. Further information and an example of a Conflict of Interest form can be found at: http://service.elsevier.com/app/answers/detail/a_id/286/supporthub/publishing. If there are "none" this should be stated in the Disclosure section.

Submission form
Original works will be accepted with the understanding that they are contributed solely to the Journal of Cardiac Failure, are not under review by another publication, and have not previously been published except in abstract form. Accepted manuscripts become the sole property of the journal and may not be published elsewhere without the consent of the Journal of Cardiac Failure. A form stating that the authors transfer all copyright ownership to the journal will be sent from the publisher when the manuscript is accepted; this form must be signed by all authors of the article.

The submission form includes three statements: (1) that there has been no duplicate publication or submission elsewhere of any part of the work (excluding abstracts), (2) that all authors have read and approved the manuscript, and (3) that there are no financial or other relations that could lead to a conflict of interest. This form must be downloaded, signed by all authors, and faxed to the editorial office.

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.

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).

Contributors
Each author is required to declare his or her individual contribution to the article: all authors must have materially participated in the research and/or article preparation, so roles for all authors should be described. The statement that all authors have approved the final article should be true and included in the disclosure.
**Authorship**

All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

**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 funding sources**

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to describe briefly 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. Please see http://www.elsevier.com/funding.

**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. After acceptance, open access papers will be published under a noncommercial license. For authors requiring a commercial CC BY license, you can apply after your manuscript is accepted for publication.

**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-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 2500, 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 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 (usage and editing services)
Manuscripts should be written in good English. 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 http://webshop.elsevier.com/languagediting/ or visit our customer support site http://support.elsevier.com for more information.

Informed consent and patient details
Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author and copies of the consents or evidence that such consents have been obtained must be provided to Elsevier on request. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.
Submission
The Journal of Cardiac Failure uses an online, electronic submission system. By accessing the website http://ees.elsevier.com/cardfail authors will be guided stepwise through the creation and uploading of the various files. When submitting a manuscript to the Elsevier Editorial System, authors need to provide an electronic version of their manuscript. For this purpose original source files, not PDF files, are preferred. The author should specify a category designation for the manuscript (original investigation, review article, brief communication, etc.) and choose a set of classifications from the prescribed list provided online. Once the submission files are uploaded, the system automatically generates an electronic (PDF) proof, which is then used for reviewing. All correspondence, including the editor's decision and request for revisions, will be by e-mail.

Submit your article
Please submit your article via http://ees.elsevier.com/cardfail.

PREPARATION

NEW SUBMISSIONS
Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process. As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or layout that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

References
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.

Formatting requirements
There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions. If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes. Divide the article into clearly defined sections.

New manuscript submission categories added
Research Letters: Brief communication of preliminary research findings, novel observations, or additional analyses relevant to prior publications in the Journal (limits: 750 words of text, 1 graphic, 10 references)

Brief Reports: These are short communications of research findings, including pilot studies, preliminary observations in a small sample of subjects, or reports of novel assessment tools, diagnostic or treatment methodologies, or approaches to health care delivery. (Limits: 1500 words of text, 3 graphics, 15 references)

Figures and tables embedded in text
Please ensure the figures and the tables included in the single file are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file. The corresponding caption should be placed directly below the figure or table.

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 one independent expert reviewer 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.
REVISED SUBMISSIONS

Use of word processing software
Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). 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.

Subdivision - unnumbered sections
Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text'.

Divide your article into clearly defined sections. Each subsection should have a brief heading that appears on a separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply "the text".

Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results. The Introduction should describe the purpose of the study and its relation to previous work in the field; it should not include an extensive literature review.

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 and present positive and relevant negative findings of the study, supported when necessary by reference to tables and figures.

Discussion
The Discussion should interpret the results of the study, with emphasis on their relation to the original hypotheses and to previous studies. The importance of the study and its limitations should also be discussed.

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. Include a short title of less than 40 characters.
• Author names and affiliations. Where the family name may be ambiguous (e.g., a double name), please indicate correct presentation clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Include academic degrees for each author. 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 review and publication, also post-publication. Ensure that phone numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be 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 structured abstract, by means of appropriate headings, should provide the context or background for the research and should state its purpose, basic procedures (selection of study subjects or laboratory animals, observational and analytical methods), main findings (giving specific effect sizes
and their statistical significance, if possible), and principal conclusions. It should emphasize new and important aspects of the study or observations. The abstract should be no more than 200 words. The structured headings to include are as follows: Background, Methods and Results, and Conclusions. In the Background section, describe the rationale for the study. In Methods and Results, briefly describe the methods and present the significant results. In Conclusions, state succinctly the interpretation of the data.

**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 4 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 used. These keywords will be used for indexing purposes.

**Abbreviations**
Define abbreviations that are not standard in the 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.).

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

**Math formulae**
Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

**Footnotes**
Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.

**Artwork**

**Electronic artwork**
**General points**
- Make sure you use uniform lettering and sizing of your original artwork.
- Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
- Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Indicate per figure if it is a single, 1.5 or 2-column fitting image.
• For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
• Please note that individual figure files larger than 10 MB must be provided in separate source files.

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
Regardless of the application used, 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 the font or save the text as 'graphics'.
TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
• 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 on the Web (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 on the Web only. For further information on the preparation of electronic artwork, please see http://www.elsevier.com/artworkinstructions.

Please note: Because of technical complications that can arise by converting color figures to "gray scale" (for the printed version should you not opt for color in print) please submit in addition usable black and white versions of all the color illustrations.

Figure captions
Ensure that each illustration has a caption. 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
Tables should be comprehensible without reference to the text and should not be repetitive of descriptions in the text. Every table should consist of two or more columns; tables with only one column will be treated as lists and incorporated into the text. Cite all tables in the text, number them in order of appearance, and provide a short heading. Each table submitted should be double-spaced, each on its own page. Explanatory matter and source notations for borrowed tables should be placed in the table footnote.

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.

**Web references**

As a minimum, the full URL and the date when the reference was last accessed should be given 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.

**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**

References should be double-spaced in numerical sequence according to standard Vancouver style, using *Index Medicus* abbreviations for journal titles. The first 6 authors should be listed in each reference citation (if there are more than 6 authors, "et al" should be used following the sixth). Periods are not used in author’s initials or journal abbreviations.

**Journal Article**


**Book**


**Chapter in Edited Book**


**Journal names abbreviations source**

Journal names should be abbreviated according to the list of title word abbreviations: [http://www.issn.org/2-22661-LTWA-online.php](http://www.issn.org/2-22661-LTWA-online.php).

**Video and audio clips**

Electronic publication permits the display of dynamic images: Illustrations that show inherently moving information may be presented as video clips submitted as MPG, MOV, AVI, or GIF files. The authors should verify that all video clips take less than a minute to load and that they play properly. To limit the loading time the clips should preferably contain only one cardiac cycle and the file size should be less than 1.5 megabytes. Slightly larger clips are permissible with 3-D images.

**Supplemental materials**

Supplemental materials - documents, tables, figures, audio clips, and video clips - may be submitted to appear online only. Such content should be cited consecutively within the text. These materials will not be copyedited, typeset, or altered in any way by the publisher. Text and tables must be provided as PDFs.
**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. Before submitting your article, you can deposit the relevant datasets to Mendeley Data. Please include the DOI of the deposited dataset(s) in your main manuscript file. 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.

**AFTER ACCEPTANCE**

**Use of the Digital Object Identifier**
The Digital Object Identifier (DOI) may be used to cite and link to electronic documents. The DOI consists of a unique alpha-numeric character string assigned by the publisher upon initial electronic publication. Because the assigned DOI never changes, it is an ideal medium for citing a document, particularly "articles in press," because they have not yet received their full bibliographic information. Example of a correctly given DOI (in URL format; here an article in the journal *Physics Letters B*):
http://dx.doi.org/10.1016/j.physletb.2010.09.059

**Proofs**
One set of page proofs (as PDF files) will be sent by e-mail to the corresponding author (if we do not have an e-mail address then paper proofs will be sent by post), or a link will be provided in the e-mail so that authors can download the files. Elsevier now provides authors with PDF proofs which can be annotated; for this you will need to download Adobe Reader version 7 (or higher)
available free from http://get.adobe.com/reader. Instructions on how to annotate PDF files will accompanies the proofs (also given online). The exact system requirements are given at the Adobe site: http://www.adobe.com/products/reader/tech-specs.html.

If you do not wish to use the PDF annotations function, you may list the corrections (including replies to the Query Form) and return them to Elsevier in an e-mail. Please list your corrections quoting line number. If this is not possible, then mark the corrections and any other comments (including replies to the Query Form) on a printout of your proof and return by fax, or scan the pages and e-mail, or by post. 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 be considered at this stage only with permission from the Editor. We will do everything possible to get your article published quickly and accurately – please let us have all your corrections within 48 hours. 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. Once an article has been published online as an article in press, no further corrections can be made except by publishing an erratum or corrigendum, and then only with the editor's approval. Proofreading is solely your responsibility.

Offprints
The corresponding author, at no cost, will be provided with a PDF file of the article via e-mail (the PDF file is a watermarked version of the published article and includes a cover sheet with the journal cover image and a disclaimer outlining the terms and conditions of use). The corresponding author will also receive one complimentary issue of the journal in which the article is published. 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 (http://webshop.elsevier.com/myarticleservices/offprints). Authors requiring printed copies of multiple articles may use Elsevier WebShop's 'Create Your Own Book' service to collate multiple articles within a single cover (http://webshop.elsevier.com/myarticleservices/offprints/myarticleservices/booklets).

Permissions
To use tables or figures borrowed from another source, permission must be obtained from the copyright holder, usually the publisher. Authors are responsible for applying for permission for both print and electronic rights for all borrowed materials and are responsible for paying any fees related to the applications of these permissions. This is necessary even if you are an author of the borrowed material. It is essential to begin the process of obtaining permission early; a delay may require removing the copyrighted material from the article. Give the source of a borrowed table in a footnote and of a borrowed figure in the legend. Use the exact wording required by the copyright holder. E-mail a copy of the letter granting permission, identified by table or figure number, along with the manuscript. Abbreviations should appear in parentheses immediately after the term first appears in the text.

Letters to the Editor
The editor invites brief letters commenting on papers appearing in the journal and on other issues.

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