The *Human Resource Management Review* (HRMR) is a quarterly academic journal devoted to the publication of scholarly conceptual/theoretical articles pertaining to human resource management and allied fields (e.g. industrial/organizational psychology, human capital, labor relations, organizational behavior). HRMR welcomes manuscripts that focus on micro-, macro-, or multi-level phenomena relating to the function and processes of human resource management. HRMR publishes articles that provide new insights aimed at stimulating future theory development and empirical research. Critical examinations of existing concepts, theories models, and frameworks are also welcome as are quantitative meta-analytical reviews that make a conceptual/theoretical contribution.

Subject areas appropriate for HRMR include (but are not limited to) Strategic Human Resource Management, International Human Resource Management, the nature and role of the human resource function in organizations, any specific Human Resource function or activity (e.g., Job Analysis, Job Design, Workforce Planning, Recruitment, Selection and Placement, Performance and Talent Management, Reward Systems, Training, Development, Careers, Safety and Health, Diversity, Fairness, Discrimination, Employment Law, Employee Relations, Labor Relations, Workforce Metrics, HR Analytics, HRM and Technology, Social issues and HRM, Separation and Retention), topics that influence or are influenced by human resource management activities (e.g., Climate, Culture, Change, Leadership and Power, Groups and Teams, Employee Attitudes and Behavior, Individual, team, and/or Organizational Performance), and HRM Research Methods. Papers introducing or helping to advance our understanding of emergent HR topics or issues are also strongly encouraged.

HRMR does not consider manuscripts that report qualitative or quantitative studies that test hypotheses or inductively examine ideas. In addition, conceptual papers and meta-analyses that do not sufficiently advance the literature in terms of providing novel insights for further theoretical development and empirical research will not be considered. Moreover, in its quest to foster the development of general theories and models, HRMR does not consider papers that deal with a single occupation, company, industry or country, nor cases of these entities (a single company, industry, etc. can be used as the primary example, but should not be the only example and the insights of the paper must be generalizable beyond that primary example). Finally, as a scholarly journal, manuscripts written primarily for practicing managers are also not considered. Submissions of these types of papers will be rejected as being outside the scope of the journal, unless requested as part of a special issue. The Editor and Associate Editors will provide an initial editorial review to determine whether submissions fall within the scope of the journal and/or are of sufficient merit to warrant peer review.
IMPACT FACTOR

2018: 3.625 © Clarivate Analytics Journal Citation Reports 2019

ABSTRACTING AND INDEXING

Scopus
Sociological Abstracts
Current Contents - Social & Behavioral Sciences
Institute for Scientific Information
Focus on: Industrial & Organizational Psychology & Research Alert
Business Periodicals Index
UnCover
Social Sciences Citation Index
Personnel Management Abstracts

EDITORIAL BOARD

Editor-in-Chief

H.J. Klein, Ohio State University Fisher College of Business, 2100 Neil Avenue, Columbus, 43210-1144, Ohio, USA

Associate Editors

D. Balkin, University of Colorado Boulder, Boulder, Colorado, United States
J. Delery, University of Arkansas Bookstore, Fayetteville, Arkansas, United States
E. Ravlin, University of South Carolina, Columbia, South Carolina, United States
K. Sanders, University of New South Wales, Sydney, New South Wales, Australia
S. Y. Tarba, University of Birmingham, Birmingham, United Kingdom

Editorial Board

A. Al Ariss, Toulouse Business School, Toulouse, France
B. J. Alge, Purdue University, West Lafayette, Indiana, United States
S. Alvarez, University of Pittsburgh, Pittsburgh, Pennsylvania, United States
M. L. Ambrose, University of Central Florida, Orlando, Florida, United States
F. Anseel, Ghent University, Gent, Belgium
A. Bakker, Erasmus University Rotterdam, Rotterdam, Netherlands
G. C. Banks, University of North Carolina at Charlotte, Charlotte, North Carolina, United States
L. A. Barclay, Oakland University, Rochester, Michigan, United States
J. Barnes-Farrell, University of Connecticut, Storrs, Connecticut, United States
M. J. Baing, Griffith University - Gold Coast Campus Department of Employment Relations and Human Resources, Southport, Australia
W. Bedwell, Pace Consulting Solutions LLC, Palm Harbor, Florida, United States
M. Bell, University of Texas at Arlington, Arlington, Texas, United States
M. Bergman, Texas A&M University College Station, College Station, Texas, United States
M. Biron, University of Haifa, Haifa, Israel
C. Bitencourt, University of the Bells River Valley School of Management and Business, São Leopoldo, Brazil
C. Boon, University of Amsterdam, Amsterdam, Netherlands
J. W. Boudreau, University of Southern California, Los Angeles, California, United States
P. Brandes, Syracuse University, Syracuse, New York, United States
I. Bučiūnienė, ISM University of Management and Economics Vilnius Campus, Vilnius, Lithuania
P. S. Budhwar, Aston University, Birmingham, United Kingdom
M. Budworth, York University, Toronto, Ontario, Canada
M. D. Burton, Cornell University, Ithaca, New York, United States
R. Cardy, University of Texas at San Antonio, San Antonio, Texas, United States
L. Castro Christiansen, University of Reading Henley Business School, Reading, United Kingdom
J-L. Cerdin, ESSEC Business School, Cergy Pontoise, France
M. Černe, University of Ljubljana, Ljubljana, Slovenia
C. Chadwick, University of Kansas, Lawrence, Kansas, United States
G. T. Chao, Michigan State University, East Lansing, Michigan, United States
A. Chuang, National Taiwan University, Taipei, Taiwan
J. N. Cleveland, Colorado State University, Fort Collins, Colorado, United States
D. Cohen, Deb Cohen LLC, McLean, Virginia, United States
S. Colakoglu, Georgia Institute of Technology, Atlanta, Georgia, United States
H. Scullion, University of Hull, Hull, United Kingdom

J. Segers, University of Antwerp, Antwerpen, Belgium

H. Shipton, Nottingham Trent University, Nottingham, United Kingdom

D. Sikora, Georgia Southern University, Statesboro, Georgia, United States

O. Solinger, VU Amsterdam, Amsterdam, Netherlands

P. Sparrow, Lancaster University, Lancaster, United Kingdom

P. Spector

K. J. Stanz, University of Pretoria Department of Human Resource Management, Hatfield, South Africa

E. Stavrou-Costea, University of Cyprus Faculty of Economics and Management, Lefkosia, Cyprus

C. Straub, Grenoble Business School, Grenoble, France

S. T. S Strohmeier, Saarland University Chair of Business Administration esp Management Information Systems, Saarbruecken, Germany

M. Swift, Oregon State University, Corvallis, Oregon, United States

R. Thacker, Ohio University, Athens, Ohio, United States

D. Truxillo, Portland State University, Portland, Oregon, United States

V. Vaiman, California Lutheran University, Thousand Oaks, California, United States

J. Vardaman, Mississippi State University, Mississippi State, Mississippi, United States

A.K. Ward, Virginia Tech University Bookstore, Blacksburg, Virginia, United States

J. Weinhardt, University of Calgary, Calgary, Alberta, Canada

S. Werner, University of Houston, Houston, Texas, United States

J Westerman, Appalachian State University, Boone, North Carolina, United States

A. Wilkinson, Griffith University, Nathan, Australia

S. Wong, BI Norwegian Business School, Oslo, Norway

S. E. Woo, Purdue University, West Lafayette, Indiana, United States

P. Wright, University of South Carolina, Columbia, South Carolina, United States

T. Wu, Macau University of Science and Technology, Taipa, Macao

K. Y. Yu, Nanyang Technological University, Singapore, Singapore

M. Zhang, Tsinghua University, Beijing, China

H. Zhao, Lally School of Management and Technology, Troy, New York, United States
INTRODUCTION

The Human Resource Management Review (HRMR) is a quarterly academic journal devoted to the publication of scholarly conceptual/theoretical articles pertaining to human resource management and allied fields (e.g., industrial/organizational psychology, human capital, labor relations, organizational behavior). HRMR welcomes manuscripts that focus on micro-, macro-, or multi-level phenomena relating to the function and processes of human resource management. HRMR publishes articles that provide new insights aimed at stimulating future theory development and empirical research. Critical examinations of existing concepts, theories models, and frameworks are also welcome as are quantitative meta-analytical reviews that make a conceptual/theoretical contribution.

Subject areas appropriate for HRMR include (but are not limited to) Strategic Human Resource Management, International Human Resource Management, the nature and role of the human resource function in organizations, any specific Human Resource function or activity (e.g., Job Analysis, Job Design, Workforce Planning, Recruitment, Selection and Placement, Performance and Talent Management, Reward Systems, Training, Development, Careers, Safety and Health, Diversity, Fairness, Discrimination, Employment Law, Employee Relations, Labor Relations, Workforce Metrics, HR Analytics, HRM and Technology, Social issues and HRM, Separation and Retention), topics that influence or are influenced by human resource management activities (e.g., Climate, Culture, Change, Leadership and Power, Groups and Teams, Employee Attitudes and Behavior, Individual, team, and/or Organizational Performance), and HRM Research Methods. Papers introducing or helping to advance our understanding of emergent HR topics or issues are also strongly encouraged.

HRMR does not consider manuscripts that report qualitative or quantitative studies that test hypotheses or inductively examine ideas. In addition, conceptual papers and meta-analyses that do not sufficiently advance the literature in terms of providing novel insights for further theoretical development and empirical research will not be considered. Moreover, in its quest to foster the development of general theories and models, HRMR does not consider papers that deal with a single occupation, company, industry or country, nor cases of these entities (a single company, industry, etc. can be used as the primary example, but should not be the only example and the insights of the paper must be generalizable beyond that primary example). Finally, as a scholarly journal, manuscripts written primarily for practicing managers are also not considered. Submissions of these types of papers will be rejected as being outside the scope of the journal, unless requested as part of a special issue. The Editor and Associate Editors will provide an initial editorial review to determine whether submissions fall within the scope of the journal and/or are of sufficient merit to warrant peer review.

Types of Paper

Authors are invited to submit for review manuscripts up to 50 double spaced typewritten pages. Longer manuscripts may be considered, but the contribution of the paper must require and justify that added length. Manuscripts should conform to the guidelines of the Publication Manual of the American Psychological Association (6th ed). All manuscripts must include a 100-150 word abstract typed on a separate page.

Examples of the forms of presentation that would be appropriate include:

- Conceptual analyses and theoretical presentations
- Short concept statements and alternative interpretations of phenomena and prior research findings
- Critiques, rebuttals, and planned debates (proposals for debates should first be submitted to the editor for approval)
- Integrative literature reviews and meta-analyses that produce important new insights and research questions

Manuscripts will be initially screened by the editor for adherence to these guidelines. Specifically, submissions will be checked for originality, readability, potential contribution to the literature, and adherence with the above noted format and content guidelines. Those passing this screening will then be subject to a double blind peer review process. Obvious self-citations that make known an author’s identification should be avoided, where possible.

Reviewers are asked to evaluate manuscripts according to the following criteria:

- Significance of contribution to HRM, industrial / organizational psychology, or allied field
- Freedom from logical and, if relevant, mathematical errors
• Plausibility of premises
• Parsimony of explanation
• Gains over the theory or practice to be supplanted, if applicable
• Clarity and conciseness of presentation
• Demonstrated awareness of previous work on the subject
• Distinctness from other contributions on the subject

Reviewers are asked to evaluate manuscripts according to guidelines as at https://www.journals.elsevier.com/human-resource-management-review/policies/reviewer-guide-for-human-resource-management-review and authors are encouraged to read these before submission.

Manuscripts must not be under simultaneous consideration for publication elsewhere and their content must not have been published in whole or substantial part in any other copyrighted publication.

Submission details
Authors unable to submit an electronic version should contact the Editorial Office, details below:
Dr. Howard J. Klein, Ph.D., Professor of Management and Human Resources,
Editor-in-Chief, Human Resource Management Review,
2100 Neil Avenue, Columbus, OH 43210-1144,
Office: (614) 292-0719 / Fax: (614) 292-7062
E-mail: klein.12@fisher.osu.edu

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

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

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

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

Changes to authorship
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

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

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.
For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

**Author rights**
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

**Elsevier supports responsible sharing**
Find out how you can share your research published in Elsevier journals.

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

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

**Open access**
This journal offers authors a choice in publishing their research:

- **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

*For clarity, this journal does not have obligatory publication charges. Authors have a choice to follow an Open Access route or a Subscription route but only after a paper has been accepted for publication.*

- **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.

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 gold open access publication fee for this journal is **USD 1800**, excluding taxes. Learn more about Elsevier's pricing policy: [https://www.elsevier.com/openaccesspricing](https://www.elsevier.com/openaccesspricing).

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

This journal has an embargo period of 36 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)

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 Author Services.

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 but copies should not be provided to the journal. Only if specifically requested by the journal in exceptional circumstances (for example if a legal issue arises) the author must provide copies of the consents or evidence that such consents have been obtained. 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

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.

Submission Address

Please submit your article via http://https://www.evise.com/profile/api/navigate/HUMRES

PREPARATION

Peer review

This journal operates a double 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.

Double-blind review

This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. More information is available on our website. To facilitate this, please include the following separately:

Title page (with author details): This should include the title, authors’ names, affiliations, acknowledgements and any Declaration of Interest statement, and a complete address for the corresponding author including an e-mail address.

Blinded manuscript (no author details): The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors’ names or affiliations.
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.

Essential title page information

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

**Highlights**

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

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

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. The abstract should be 100 - 150 words long.

**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.

**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.

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.

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.

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

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style
Text: Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5, copies of which may be ordered online or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK.

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:

Reference to a journal publication with an article number:

Reference to a book:

Reference to a chapter in an edited book:

Reference to a website:

Reference to a dataset:

Reference to a conference paper or poster presentation:

**Video**

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

**Data visualization**

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

**Supplementary material**

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

**Research data**

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

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

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

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

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

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

Mendeley Data

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

For more information, visit the Mendeley Data for journals page.

Data in Brief

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

Data statement

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

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](https://www.elsevier.com) providing 50 days free access to the final published version of the article on [ScienceDirect](https://www.sciencedirect.com). The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's [Author Services](https://www.elsevier.com/author-services). Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

**AUTHOR INQUIRIES**
Visit the [Elsevier Support Center](https://www.elsevier.com/support) 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](https://www.elsevier.com)