The Journal of Ayurveda and Integrative Medicine (J-AIM) is internationally circulated open access official publication of World Ayurveda Foundation and Trans-Disciplinary University, Bengaluru. As a trans-disciplinary platform for integrative health sciences, J-AIM aims to explore the relationships between Ayurveda, traditional medicine, biomedicine and other contemporary health sciences, encouraging meaningful collaboration to promote effective, safe and affordable global health.

J-AIM encourages collaboration and communications between professional, academic and scientific communities. It publishes critical aspects of intellectual and scientific communication focused on Ayurveda, traditional medicine and biomedicine to facilitate integrative approaches to global healthcare.

Articles explaining and exploring principles of Ayurveda and traditional medicine; theoretical, experimental, and clinical research; evidence based clinical practice promoting trans-disciplinary research culture and mainstreaming traditional medicine using advances in biomedicine, basic sciences and technology as well as articles envisioning future scope, research areas and priorities will be considered.

J-AIM also encourages articles investigating biological effects of traditional medicines, pharmacological and physiological interventions. It welcomes research that endeavors to design and development of new protocols, reporting standards, processes, methods, pharmaceutics, quality control, instruments, clinical practice and translation into healthcare systems.

J-AIM Editorial Board and reviewers comprise expert academicians, researchers and clinicians who help for capacity and competency building in scientific writing. Effective and user friendly manuscript processing system of the journal facilitate review process for timely decisions and publications. The journal is a member of reputed international bodies like World Association of Medical Editors, Indian Association of Medical Journal Editors, and Committee of Publication Ethics (COPE). J-AIM is indexed in PubMed and Scopus among many other. J-AIM does not charge manuscript processing fees from authors.
ABSTRACTING AND INDEXING

Web of Science
PubMed
Scopus
EMBASE/Excerpta Medica
Emerging Sources Citation Index (ESCI)
CAB Abstracts
Directory of Open Access Journals (DOAJ)

EDITORIAL BOARD

Editor-in-Chief
Bhushan Patwardhan, Center for Complementary and Integrative Health, Interdisciplinary School of Health Sciences, Savitribai Phule Pune University, Pune, India

Editorial Advisors
Julia Arnold, Translational Research Program, National Cancer Institute (NCI), Bethesda, USA
Brent Bauer, Complementary and Integrative Medicine Program, Mayo Clinic, Rochester, USA
Gerard Bodeker, Green Templeton College, University of Oxford, UK
B N Gangadhara, National Institute of Mental Health and Neurosciences, Bengaluru, India
G G Gangadharan, MS Ramaiah Indic Center for Ayurveda and Integrative Medicine, Bengaluru, India
Y K Gupta, All India Institute of Medical Sciences, New Delhi
B M Hegde, Former Vice Chancellor, Manipal University, Manipal, India
Vishwa Mohan Katoch, Former Director General, Indian Council of Medical Research, New Delhi, India
K Satya Lakshmi, National Institute of Naturopathy, Pune, India
R K Mutatkar, Tagore Research Scholar and Former Professor, Pune University, Pune, India
H R Nagendra, S-VYASA University, Bengaluru, India
John Porter, London School of Hygiene and Tropical Medicine, London, UK
V Prakash, Former Director, Central Food Technological Research Institute, Mysuru, India
K Satyanarayana, Former Deputy Director General, Indian Council of Medical Research, New Delhi, India
Darshan Shankar, Transdisciplinary University, Bengaluru, India

Editorial Review Board Members
A V Balasubramanian, Centre for Indian Knowledge Systems, Chennai, India
Jorge Berra, Fundación de Salud Ayurveda Prema, Argentina
Manoj Bhasin, Bioinformatics and Systems Biology, Beth Israel Deaconess Medical Center (BIDMC) and Harvard Medical School, Boston, USA
Narendra S Bhatt, Indian Association for Study of Traditional Asian Medicine, Mumbai, India
Mukund Bhole, Former Scientist, Kaivalyadhama Yoga Research Institute, Lonavala, Lonawala, India
Maarten Bode, University of Amsterdam, Amsterdam, The Netherlands
P Brindha, Centre for Advanced Research in Indian System of Medicine, Sastra University, Thanjavur, India
Harpal Buttar, Faculty of Medicine, University of Ottawa, Ottawa, Canada
Sharad Deshpande, Former Professor, Savitribai Phule Pune University, Pune, India
R Galib, All India Institute of Ayurveda, New Delhi, India
Aayam Gupta, Centro Cultural India, Embassy of India, Peru and Bolivia, Lima, Peru
Alex Hankey, S-VYASA University, Bengaluru, India
Lal Hingorani, Pharanza Herbal Pvt Ltd, Anand, India
Simone Hunziker, Indo-Swiss Ayurveda-Foundation, Geneva, Switzerland
R Ilavarasan, Captain Srinivasa Murti Research Institute for Ayurveda and Siddha Drug Development, CCRAS, Ministry of Health and Family Welfare, Govt of India, Chennai, India.
Rama Jayasundar, All India Institute of Medical Sciences, New Delhi, India
Kalpana Joshi, Department of Biotechnology, Sinhgad College of Engineering, Pune, India
Chandra Kant Katiyar, Research & Development, Emami Ltd., Kolkata, India
Christian Kessler, Immanuel Hospital, Berlin, Germany
Pramod Khandekar, Former Professor, Savitribai Phule Pune University, Pune, India
Stephan Kloos, Institute for Social Anthropology, Austrian Academy of Sciences, Austria
Nikolaos Kostopoulos, Holistic Health Centre, Athens, Greece
Subrahmanya Kumar, School of Life Sciences, Transdisciplinary University, Bengaluru, India
Martha Villar López, Universidad Nacional Mayor de San Marcos, San Marcos, Peru
Nitin Mantri, School of Science, RMIT University, Melbourne, Australia
Maximilian Moser, Division of Gastroenterology and Hepatology, Medical University of Graz, Weiz, Austria
A M Mujumdar, Former Scientist, Agharkar Research Institute, Pune, India
D B Anantha Narayana, Ayurvediye Trust, Bengaluru, India
Pratibha Nerurkar, University of Hawaii, Honolulu, USA
GUIDE FOR AUTHORS

Types of paper
Contributions falling into the following categories will be considered for publication:
Editorial, Opinion Paper (Thought Leadership Article), Full Length Article (Original Research Article (Experimental), Original Research Article (Clinical), General Article, Pedagogy), Case Report (Case series), Short Communication, Review Article, Short Review, Discussion (Discussion Kernel, Commentary), Feature Article (Life Profiles, Vignette, Initiatives, Review of landmark articles), Correspondence (Letters), Product Review, Book Review, Practice Guidelines, and E-Publication (News and comments, Future events, Conference Report)

Editorial
Editorials: Editorials are written by the Editorial Board member or by Guest Editorials special invited by the Editor-in-chief. Restrict manuscript to about 1500 words and about 15 references.

Opinion Paper
Thought Leadership Article: Please restrict non-structured abstract to 250 words and manuscript to about 2000 words (excluding about 20 references)

Full Length Article
Original Research Article (Experimental): Please restrict the structured abstract to 250 words (background, objectives, material and methods, results, conclusions) and the manuscript to about 5000 words (excluding about 70 references) and 8 non-text items. Experimental Research articles report authors' original (other than clinical) research of a more technical and specialized nature. They may include studies meant for standardization of raw drugs and finished formulations, toxicity and efficacy studies, studies exploring significance of Ayurvedic pharmaceutical processes. Studies involving integrative methods/techniques for standardization of drugs and diagnosis of diseases based on Ayurvedic classical guidelines will be appreciated. Authors should mention details of authentication of raw drugs and finished formulations used, animal ethics committee clearance (if applicable) and guidelines followed for the study. For all biochemical/laboratory procedures, either provide sufficient details or a reference for the relevant details. Provide name and address of the manufacturer for trade names or commercial products. Please follow ARRIVE guidelines for reporting in-vivo research (https://www.nc3rs.org.uk/arrive-guidelines).

Original Research Article (Clinical): This section reports clinical research, within the scope of J-AIM. Clinical studies may include clinical trials, cross sectional studies, case control and cohort studies.

Research conducted on humans should be in compliance with the Declaration of Helsinki and the principles of Good Clinical Practices wherever applicable. Approval of research by relevant ethics committee is mandatory and should be mentioned wherever applicable.

Protection of Patients' Rights to Privacy: Any information that could reveal identity of individuals in written descriptions, photographs, sonograms, CT scans, etc., should not be included in the manuscript unless the information is essential for scientific purposes and the patient (or parent or guardian, wherever applicable) gives written informed consent for publication. Informed consent should be mentioned in the article. The journal office may ask for copy of the consent form, original data, which should be provided on request.

Restrict the structured abstract to 250 words and the manuscript to about 5000 words (excluding about 70 references) and 8 non-text items. Each manuscript should clearly state an objective or hypothesis; the design and methods (including the study setting and dates, patients or participants with inclusion and exclusion criteria, or data sources, and how these were selected for the study). Authors should include the essential features of interventions; the outcome measures; the results of the study; a discussion section placing the results in context with the published literature and addressing study limitations; and the conclusions. Clinical trials (interventional studies) only those are registered with Clinical Trials Registry- India (CTRI) http://www.ctri.nic.in will be considered for publication. The authors need to mention CTRI registration number in covering letter and in the article file. All the randomized controlled trials should be described on the basis of revised CONSORT statement, which is available at http://www.consort-statement.org. Authors need to mention details
about authentication of raw drugs and finished formulations used, ethics committee clearance, informed consents from patients and guidelines followed for the study. Provide name and address of the manufacturer for trade names or commercial products.

**General Article:** General articles report authors' original work of a non-clinical nature, concerning topics, either within the scope of J-AIM and experimental areas, or otherwise relevant to contemporary issues in Ayurveda, and Integrative Medicine. Please restrict non-structured abstract to 250 words and the manuscript to about 3000 words (excluding about 50 references) and 5 non-text items.

**Pedagogy:** Articles by experienced Ayurvedic scholars of relevance to contemporary issues in education, teaching methods and approaches are expected in this section. Articles exploring epistemology, fundamental concepts and principles of Ayurveda, Yoga, Siddha, Unani and Homeopathic medicines for its better understanding, literary studies on historical, sociological and classics influencing current healthcare scenario are appreciated. Restrict the manuscript to about 3000 words (excluding about 40 references) and 5 non-text items. An abstract is not required for a Pedagogy article.

**Case Report**
**Case reports:** Case Studies concern successful application of treatment, adverse events or novel observation of a single case. The cases should be unique, describing a great diagnostic or therapeutic challenge and providing a learning point for the readers. Restrict the manuscript to about 1,500 words (excluding about 20 references), 2 non-text items and include a non-structured abstract of up to 200 words. Please follow CARE Statement available on http://www.care-statement.org for structuring case reports. Patient’s identity should not be revealed from the clinical photographs or CT/USG pictures.

**Case Series:** Case Series are collection of cases with similar exposure and / or outcomes. The case series about application of Ayurveda or Integrative Medicine to a specific pathology and illustrate efficacy of an unusual application of a traditional treatment, hopefully indicating a solution to some contemporary medical problem will be considered for publication. Restrict non-structured abstract to 250 words, manuscript about 3000 words (excluding about 40 references) and 4 non-text items.

**Short Communication**
Short communications may include important preliminary studies and reports. Please provide non-structured abstract to 250 words and restrict the manuscript to about 1,500 words (excluding about 20 references) and 2 non-text items.

**Review Article**
Reviews may cover particular areas of Ayurveda or integrative medicine of relevance to contemporary issues. Review articles written by individuals who have done substantial work on a subject or by experts in the field are appreciated. They should be systematic, state-of-art comprehensive reviews of the subject including author(s) own inputs. A good review article may have author(s) claim / view after going through scientific literature pertaining to a specific area, reasons behind the claim / view, factual evidences discussing the claim / view and finally novel conclusions drawn after interlinking many research findings. The section titles should depend upon the topic reviewed. Authors submitting a review article should include a section describing the methods used for locating, selecting, extracting, and synthesizing data. These methods should also be summarized in the abstract. A review article should not be a mere compilation. The journal expects the contributor to give post-publication updates and advances on the subject of review. The update should be brief and should be sent as a letter to editor, as and when major developments occur in the field. Restrict non-structured abstract to 250 words and manuscript to about 6000 words (excluding about 80 references) and about 8 non-text items.

**Short Review**
A short review is expected up to 2000 words with 20 references and non-structured abstract up to 200 words.

**Discussion**
Discussion Kernel: A short pithy article concerning some issue of wide potential interest, which requires, and is designed to stimulate, further discussion and debate will be considered in this section. Restrict manuscript to about 1500 words (excluding about 20 references), 3 non-text items and non-structured abstract up to 200 words.

Commentary: Commentary is generally solicited from reviewers on very important papers. The limit is 500 words with no abstract.

Feature Article
Life Profile: Life profile of a legendary personality, physician/scientist of today or from the past who has contributed to Ayurveda, traditional medicine and integrative medicine will be considered for publication. The article should be legible, to the point, balanced, without any prejudice or prepossession in mind and telling about the person to the fullest. The number of words spent on personal life should be limited and the article should be more focused towards his/her contribution in the field of Ayurveda or integrative medicine. The article should clearly pick up the qualities of the person which made him an important personality in the field and should illustrate the important scientific/scholarly works, and contribution to philosophy or clinical practice. Use of quality reference material is expected. Abstract is not required and restrict manuscript to about 2000 words (excluding about 20 references).

Vignettes: Vignettes retell incidents in the lives of great Vaidyas/scientist, which encapsulate and illustrate an important point about the philosophy, knowledge or practice of Ayurveda, a related AYUSH system, or integrative medicine. Focused interviews are also considered. Please restrict the manuscript to about 2000 words and 2 Photographs if available. For Vignettes, an abstract is not required.

Initiatives: Initiatives recount the history, philosophy, mission and activities of some important projects, institutions, organizations and associations making contributions to advance Ayurveda or Integrative Medicine healthcare, either locally or globally. Restrict the manuscript to about 3000 words (excluding about 30 references). Abstract is not required. Illustrative pictures and diagrams will be appreciated. Initiatives articles are solicited. The article may include points like focal theme of the initiative, planning and preparations done before implementation, problems faced during establishment of the initiative and how they were solved, current situation, on-going projects / programs, current problems if any, importance of the project / organization to Ayurveda or Integrative Medicine, contribution and response of Ayurveda and Biomedicine fraternities, future plans and directions, expectations from government authorities or stakeholders, appeal for feedback ( if any) and important links.

Review of Landmark Article: Review of Landmark Articles gives deep insights into a scientific paper representing a turning point in the history of any aspect of Ayurveda or Integrative Medicine. Articles will be solicited or commissioned. Please restrict non-structured abstract to 250 words and manuscript up to 3000 words (excluding about 50 references) with 5 non-text items.

Correspondence
Letters: Letters are welcome from all readers on topics and issues pertaining to articles in recent editions of J-AIM, or to the worlds mainly of Ayurveda, other AYUSH systems and traditional medicine or Integrative Medicine. Letters should be brief, concise and to the point. Restrict manuscript to about 1000 words (excluding about 15 references) and 1 non-text items.

Product review: Product review includes brief and evidence based information about any product, devise, instrument or tool useful in clinical practice, research or translation. Restrict the manuscript up to 500 words with maximum two non-text items.

Book reviews: Book reviews can be solicited by J-AIM editorial staff or commissioned ones. Readers are welcome to suggest high quality contemporary or historically important books on Ayurveda for review. Offers to review such books will also be considered. For unsolicited book reviews, the reviewer needs to upload a permission letter from the authors of the book. Please note that in both the cases (solicited or unsolicited book review) publisher / author(s) / reviewer(s) needs to send a copy of the book reviewed or to be reviewed to the Editorial Office at Pune.
The reviewer should highlight who the expected readers are, introduce readers to the book’s content (but avoid repeating its table of contents), focus on the subject, its approach and novelty; inform readers about what is happening in the area which the book addresses; what is the state of knowledge in the subject; and how this new book adds, changes or breaks new ground in our knowledge of this subject. If the book is an edited collection of essays, or chapters by different individuals, give some idea of the overall theme and content, but be free to focus on specific chapters you consider particularly significant or worthwhile. A book review may include an introduction to the author(s), including the author's title and place of work and some information stating who the author is; a summary of the intended purpose of the book and its contributions to Ayurveda and integrative medicine; a description of the way the author approaches his or her topic; the rigor of research and scholarship; the logic of the argument and the readability of the prose. If possible, a comparison with earlier or similar books in the field, and an evaluation of the book's merits, usefulness, and special contributions may be included.

Abstract is not required and restrict the manuscript to about 2000 words and a jpeg image of the cover page of the book reviewed should be uploaded separately.

**Practice Guidelines**
Guidelines about clinical practice, research and education about Ayurveda, traditional medicine or Integrative Medicine will be published in this section. Please follow expected guidance for developers of reporting guidelines, available on [http://www.equator-network.org/toolkits/developers](http://www.equator-network.org/toolkits/developers)

Following article types will be published as e-Publication only.

**Conference Report:** Please restrict manuscript up to 1200 words with maximum two non-text items.

**News and comments:** These are written by J-AIM editorial staff. Readers may suggest topics and events for publication pertaining recent activities in the field of Ayurveda and Integrative Medicine. Please contact editor.jaim@gmail.com

**Future events:** These are generally written by J-AIM editorial board members. Please submit requests for particular events to be covered. In this case, suggestions for the person to write the report will also be welcome. Please contact editor.jaim@gmail.com

Authors may use the equator network site for sourcing these guidelines [http://www.equator-network.org](http://www.equator-network.org)

Please ensure that you select the appropriate article type from the list of options when making your submission. Authors contributing to special issues should ensure that they select the special issue article type from this list.

**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.

**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

The authors need to upload a scanned copy of the 'consolidated copyright form' duly undersigned by all the contributors at the time of submission. Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement'. Acceptance of the agreement will ensure the widest possible dissemination of information. 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.

Permission of the society 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 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.

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 WebShop.

Submission

Submission to this journal proceeds totally online. Use the following guidelines to prepare your article. Via the homepage of this journal EVISE you will be guided stepwise through the creation and uploading of the various files. The system automatically converts source files to a single Adobe Acrobat PDF version of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail and via the author's homepage, removing the need for a hard-copy paper trail. If you are unable to provide an electronic version, please contact the editorial office prior to submission, please e-mail: editor@gmail.com

Additional Information

Tables and figures may be presented with captions within the main body of the manuscript; if so, figures should additionally be uploaded as high resolution files.

Peer Review Policy

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 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. For more information on the types of peer review, please visit: https://www.elsevier.com/reviewers/peer-review.

PREPARATION

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.

Latex

If the LaTeX file is suitable, proofs will be produced without rekeying the text. The article should preferably be written using Elsevier's document class "elsarticle", or alternatively any of the other recognized classes and formats supported in Elsevier's electronic submissions system, for further information visit our Support Center. The Elsevier "elsarticle" LaTeX style file package (including detailed instructions for LaTeX preparation) can be obtained from the Quickguide: https://www.elsevier.com/latex. It consists of the file: elsarticle.cls, complete user documentation for the class file, bibliographic style files in various styles, and template files for a quick start.

Article structure

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

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

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

Theory/calculation
A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results
Results should be clear and concise.
Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

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

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

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

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

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

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

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

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

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].
It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

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

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

Nomenclature and units

Follow internationally accepted rules and conventions: use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI. Authors wishing to present a table of nomenclature should do so on the second page of their manuscript.

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 can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Artwork

Electronic artwork

General points

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

A detailed guide on electronic artwork is available. You are urged to visit this site; some excerpts from the detailed information are given here.

Formats

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

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

EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/halftone (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.

**Illustration services**

Elsevier's WebShop offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

**Figure captions**

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

**Tables**

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

**References**

**Citation in text**

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

**Reference links**

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

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

**Web references**

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

**References in a special issue**

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

**Reference management software**

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley and Zotero, as well as EndNote. Using the word processor plug-ins from these products, authors only need to select the appropriate journal template when preparing their
References should be numbered consecutively in the order in which they are first mentioned in the text (not in alphabetic order). Identify references in text, tables, and legends by Arabic numerals with square bracket around, after the punctuation marks. Reference to a journal publication: Standard journal article (for up to six authors):

Standard journal article (for more than six authors): List the first six contributors followed by et al.

Volume with supplement:

Issue with supplement:

**Books and Other Monographs**

Authors:

Editor(s), compiler(s):

Chapter in a book:

**Referencing Ayurvedic Classics**

Text from a classic:

Please note that if the references from a classical text (e.g. Samhita) are more than three, then please cite once the reference of the text and add numbers of verses in running text.

Regional language books:
Author(s):

Editor(s):
Please note that J-AIM accepts references from authentic journals those are indexed in Scopus, PubMed and Science Citation Index.

**Journal abbreviations source**

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

**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 be notified and receive a link to the published version of the open access article on ScienceDirect. This link is in the form of an article DOI link which can be shared via email and social networks. 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. 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.

**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.