DESCRIPTION

This journal provides rapid publication of complete research reports and reviews in the field of psychiatry.

The scope of the journal encompasses: biochemical, physiological, neuroanatomic, genetic, neurocognitive, and psychosocial determinants of psychiatric disorders. Diagnostic assessments of psychiatric disorders. Evaluations that pursue hypotheses about the cause or causes of psychiatric diseases. Evaluations of pharmacologic and non-pharmacologic psychiatric treatments. Basic neuroscience studies related to animal or neurochemical models for psychiatric disorders. Methodological advances, such as instrumentation, clinical scales, and assays directly applicable to psychiatric research. These will be considered only if the scales and assays are included as an appendix to the manuscript in English. If they are too long, the way to obtain them without cost to the reader must be carefully stated in the methods section of the manuscript. Reviews of timely topics in psychiatric research Letters to the editor will be considered for case reports, comments about previously published papers, or secondary data analyses.

Papers with a primary focus on imaging techniques, can be submitted to Psychiatry Research: Neuroimaging.

AUDIENCE

Psychiatrists, Neuroscientists, Pharmacologists, Endocrinologists.

ABSTRACTING AND INDEXING

BIOSIS Citation Index
PsycINFO
Current Contents - Life Sciences
Embase
Chemical Abstracts
PubMed/Medline
SIIC Data Bases
Scopus
EDITORIAL BOARD

Editor-in-Chief
Lynn E. DeLisi, Cambridge Hospital, Cambridge, Massachusetts, United States of America
Schizophrenia, Psychiatric genetics, Brain imaging, Language

Deputy Editors
Vincenzo De Luca, University of Toronto, Department of Psychiatry, Toronto, Ontario, Canada
Suicide, Schizophrenia, Epigenetics, EEG, Genetics
Brian Dean, Florey Institute for Neuroscience and Mental Health, Molecular Psychiatry Laboratory, Parkville, Victoria, Australia
Schizophrenia, Bipolar disorders, Major depressive disorders, Cortex, Postmortem CNS
Brita Ellevåg, UiT The Arctic University of Norway, Tromsø, Norway
Schizophrenia, Dementia, Neurocognition, Language
Diane Gooding, University of Wisconsin-Madison, Madison, Wisconsin, United States of America
Schizophrenia, Schizophrenia-spectrum, Social anhedonia, Psychosis risk, Endophenotypes, Dementia
Ronald Guerrera, Harvard Medical School, Boston, Massachusetts, United States of America
Dolores Malaspina, Icahn School of Medicine at Mount Sinai, New York, New York, United States of America
Psychosis, epidemiology, prenatal, dev
Sibylle Schwab, University of Wollongong School of Chemistry and Molecular Bioscience, Wollongong, Australia
Genetics, Neuroscience, Addiction, Schizophrenia, Epigenetics
Antonio Vita, University of Brescia, Department of Clinical and Experimental Sciences, Brescia, Italy
Schizophrenia, Mood disorders, Cognition, Neuroimaging, Psychosocial interventions

Special Issue Editor
Igor Elman, Cambridge Health Alliance, Cambridge, Massachusetts, United States of America
stress, reward, neuroendocrinology, brain imaging, addiction, psychosis

Consulting Editor
Leonardo F. Fontenelle, Federal University of Rio de Janeiro Institute of Psychiatry, Rio de Janeiro, Brazil

Distinguished Advisors
Nancy Andreasen, The University of Iowa, Iowa City, Iowa, United States of America
William Bunney Jr., University of California Irvine, Irvine, California, United States of America
Elliot Gershon, The University of Chicago, Chicago, Illinois, United States of America
Genetics and Pusychiatry
Helen Herrman, The University of Melbourne Centre for Mental Health, Melbourne, Australian Capital Territory, Australia
Mental health promotion, Community mental health, women's mental health
Dilip Jeste, University of California San Diego, La Jolla, California, United States of America
Schizophrenia, Neuropsychiatric interventions, Successful aging
Herb Y. Meltzer, Northwestern University Feinberg School of Medicine, Chicago, Illinois, United States of America
Schizophrenia, Drug discovery, Serotonin, Memory, Animal models, Suicide
Henry Nasrallah, University of Cincinnati College of Medicine, Cincinnati, Ohio, United States of America
Neurobiology of psychotic disorders, Neuropharmacology, Neurodegeneration, Neuroprotection, Neurotoxicity
Robert M. Post, The George Washington University School of Medicine and Health Sciences, Washington, District of Columbia, United States of America
Carol A. Tamminga, The University of Texas Southwestern Medical Center, Dallas, Texas, United States of America
Pamela Taylor, Cardiff University, Cardiff, United Kingdom
Forensic psychiatry, psychosis, prevention of harms by people with mental disorder
Jijun Wang, Shanghai Jiao Tong University School of Medicine, Shanghai, China
Schizophrenia, Neuroimaging, Electrophysiology, Neuromodulation

Editorial Board
Monica Aas, NORMENT Centre for Psychosis Research, Oslo University Hospital and University of Oslo, Norway
Social, Genetic and Developmental Psychiatry Centre, Institute of Psychiatry, Psychology and Neuroscience and King’s College London, London, United Kingdom
Mental illness, cognitive functioning, stress, wellbeing, childhood trauma
Amitai Abramovitch, Texas State University, San Marcos, Texas, United States of America
OCD, OCRD, Meta Analysis, Comorbidity, Neuropsychology, Cognitive Function, Executive Function
Mohamed Alnor, Saudi Arabia Ministry of Health, Riyadh, Saudi Arabia
Schizophrenia, Epilepsy, Disability, MicroRNA, Bipolar Disorder, Psychiatry genetics

**Celso Arango**, General University hospital Gregorio Maranon, Madrid, Spain
Early onset psychosis, Neurodevelopmental disorders, Developmental neuropsychopharmacology, Prevention in mental health

**Laila Asmal**, Stellenbosch University, Department of Psychiatry, Cape Town, South Africa
Schizophrenia, Epidemiology, Neuropsychiatry, Public mental health

**Clare Beasley**, The University of British Columbia, Vancouver, British Columbia, Canada
schizophrenia; microglia; astrocyte; immune; white matter; bipolar disorder; neuropathology

**Elisabeth Binder**, Max-Planck-Institute for Psychiatry, München, Germany
Genetics, Epigenetics, Gene x Environment interactions, Stress

**Michael A. P. Bloomfield**, University College London, London, United Kingdom
Psychosis, Trauma, Cannabis, Imaging, Therapeutics

**Ermal Bojdani**, Harvard South Shore Psychiatry Residency Training Program, Brockton, Massachusetts, United States of America
General psychiatry, Psychosis, Depression

**John Bradley**, Harvard South Shore Psychiatry Residency Training Program, Brockton, Massachusetts, United States of America

**Nicholas Carson**, Cambridge Health Alliance Child & Adolescent Psychiatry, Cambridge, Massachusetts, United States of America
Youth suicide, Mental health services, Disparities in care, Machine learning, Pediatric psychopharmacology

**Eric Yu Hai Chen**, The University of Hong Kong, Department of Psychiatry, Hong Kong, Hong Kong
Psychosis, Early intervention, Pheonmenology, Evaluation studies, Youth Mental Health

**Timothy Creedon**, Cambridge Health Alliance, Department of Psychiatry, Cambridge, Massachusetts, United States of America
Health services research; mental health treatment access; serious mental illness; co-occurring mental and substance use disorders; health policy; health insurance; quantitative research methods; experimental and quasi-experimental research design; survey data; claims data; electronic health record data; causal inference; structural equation modeling

**Sandra M. DeJong**, Cambridge Health Alliance Child & Adolescent Psychiatry, Cambridge, Massachusetts, United States of America
Psychiatry, Education, Professionalism, Technology, Addictions, Telepsychiatry

**Laura Dellazzizzo**, Université de Montréal, Beaupré, Quebec, Canada
Clinical Psychiatry

**Smita Neelkanth Deshpande**, St John's National Academy of Health Sciences, Bangalore, India
Schizophrenia, Autism, Tobacco, Yoga, Cognition, Implementation research, Research training, Tobacco cessation and policy

**Katie Dhingra**, Leeds Beckett University, Leeds, United Kingdom
Self-injury, Self-harm, Suicide, Psychopathy, Trauma

**Faith Dickerson**, Sheppard Pratt Health System, Baltimore, Maryland, United States of America
Schizophrenia, Bipolar disorder, Immune, Tobacco

**Robin Emsley**, Stellenbosch University, Faculty of Medicine and Health Sciences, Cape Town, South Africa
Schizophrenia, Antipsychotics, First-episode, Childhood trauma, Neuroimaging, outcome

**Ira D. Glick**, Stanford University School of Medicine, Stanford, California, United States of America
Schizophrenia, Psychopharmacology education, Mass murders

**Anthony A. Grace**, University of Pittsburgh, Department of Neuroscience, Pittsburgh, Pennsylvania, United States of America
Schizophrenia, Depression, Dopamine, Hippocampus, Development

**Oye Gureje**, University of Ibadan, Ibadan, Nigeria
Clinical Psychiatry

**Kotaro Hattori**, Japan
Clinical Psychiatry

**Erin Hazlett**, Icahn School of Medicine at Mount Sinai, Department of Psychiatry, New York, New York, United States of America
Schizophrenia spectrum, Personality disorders, MRI, Neuroimaging, Cognition and emotion processing

**Hai-Gwo Hwu**, National Taiwan University College of Medicine, Taipei, Taiwan
Psychopathology, Neurobiology, Schizophrenia, Community Psychiatry, Mental Health Promotion

**Jayashri Kulkarni**, Monash University, Clayton, Victoria, Australia
women's mental health, psychoneuroendocrinology

**Jun Soo Kwon**, Seoul National University, Gwanak-gu, South Korea
OCD, High risk, Schizophrenia

**Margaret Lanca**, Harvard Medical School, Department of Psychiatry, Southborough, Massachusetts, United States of America
neuropsychology, cognition, early psychosis
Marion Leboyer, University Paris-Est Créteil Val de Marne, Créteil, France
Genetic, Immunology, Brain imaging, Cost analysis, Epidemiology

Rena Li, Capital Medical University, Beijing, China
Alzheimer’s disease, Schizophrenia, Depression, Sex biology, Biomarkers

Cindy H. Liu, Harvard Medical School, Brigham and Women’s Hospital, Boston, Massachusetts, United States of America
Mental health, Pediatrics, Health disparities, Culture, Social determinants of health, Perinatal, youth, Young adulthood

Roger S. McIntyre, University Health Network, Toronto, Ontario, Canada
Depression, Bipolar disorder, Pharmacology, Cognition, Neuroscience, Mood disorders, Anhedonia, Reward, Public health, COVID-19

Alice Medalia, Columbia University Irving Medical Center, New York, New York, United States of America
Cognitive health, cognitive remediation, motivation, schizophrenia, serious mental illness, psychiatric rehabilitation

Armida Mucci, University of Campania Luigi Vanvitelli, Department of Mental and Physical Health and Preventive Medicine, Napoli, Italy
Psychiatry, Schizophrenia, Negative symptoms, Cognitive impairment, Cognitive remediation, EEG, Brain Imaging, Psychosocial rehabilitation

Kim Mueser, Boston University, Boston, Massachusetts, United States of America
Schizophrenia, Severe mental illness, Treatment, Psychiatric rehabilitation, Social skills training, Family psychoeducation, Cognitive remediation

David N. Osser, VA Boston Healthcare System Brockton Division, Brockton, Massachusetts, United States of America
Clinical Psychopharmacology, Algorithms, Evidence-based Medicine, Bipolar Disorders, Schizophrenia

David Roe, University of Haifa, Haifa, Israel
Stigma, recovery, Outcome

Susan L Rossell, Swinburne University of Technology, Hawthorn, Victoria, Australia
Schizophrenia, Body Dysmorphic Disorder

Andrea Schmitt, Ludwig Maximilians University LMU University Hospital Munich, Munich, Germany
Schizophrenia, neurobiology

Andi Tanra, Indonesia
Solomon Teferra, Addis Ababa University, Addis Ababa, Ethiopia
Psychosis, Epidemiology, Genetics, Addiction

Miriam Tepper, New York State Psychiatric Institute, New York, New York, United States of America
Community psychiatry

Pichet Udomratn, Songkhla, Hat Yai, Thailand
Schizophrenia and related psychotic disorders, Sleep disorders, Depressive disorders, Anxiety disorders including PTSD and geriatric psychiatry

Anne-Marie Van Elburg, Utrecht University, Utrecht, Netherlands
Clinical Psychiatry

Helene Verdoux, University of Bordeaux, Talence, France
Antipsychotics, Pharmacoepidemiology, Clozapine, Treatment-resistant schizophrenia

Haley Volk Solomon, University of California San Diego, Department of Psychiatry, La Jolla, California, United States of America
Geriatric Psychiatry, Older Adults, Addictions

Cyndi Shannon Weickert, SUNY Upstate Medical University, Syracuse, New York, United States of America
Schizophrenia, neuroinflammation, macrophages, neuropathology, blood biomarkers, growth factors, hormones, adolescence, transcriptomics, prefrontal cortex, midbrain, neurogenesis

Thomas Weickert, SUNY Upstate Medical University, Department of Neuroscience and Physiology, Syracuse, New York, United States of America
cognition, learning, schizophrenia, psychosis

Rachel Yehuda, Icahn School of Medicine at Mount Sinai, New York, New York, United States of America
PTSD

Tianhong Zhang, Shanghai Jiao Tong University School of Medicine, Shanghai, China
Clinical high risk of psychosis; Ultra high risk; Prodromal;Early identification; Early intervention

Founding Editor
Monte Buchsbaum, University of California San Diego, La Jolla, California, United States of America
GUIDE FOR AUTHORS

Rapid publication is a priority; hence, authors are requested to pay close attention to the following instructions for the submission of manuscripts to the journal Psychiatry Research.

Preparation of manuscripts

Title page. The Title page should include the author byline, with names of authors on the same line(s). Superscript letters (a, b, c), not numerals, should be used to key institutional affiliation (if all authors are in the same department, the superscript letter should be omitted); an asterisk should be entered to designate the corresponding author. Underneath the byline, institutional affiliations should be listed (department, institution, city, state or province (if applicable) and country. Funding information should not be included on the title page but should instead be given following the Discussion section. In an asterisked Corresponding Author footnote at the bottom of the title page, telephone/fax numbers and e-mail address of the corresponding author should be provided; e-mail addresses, if desired, may also be provided for the co-authors (or co-corresponding author, if applicable).

Abstract. The Abstract should be 150-200 words for full-length articles and 100 words for short communications (formally known as Brief Communications), summarizing the aims of the study, the methods used, the results and the major conclusions. Do not include a summary at the end of the article. Note that Psychiatry Research does not use the structured abstract style; do not include bold-faced headings within the abstract. The Abstract should be a single paragraph. Do not include detailed statistics or p-values in the abstract; simply say "significant" or "non-significant".

The abstract should be followed by up to seven key words which accord with the indexing conventions of Index Medicus. Note that the keywords should not duplicate words used in the title of the article, which will be automatically indexed.

Text. Although exceptions will be considered, manuscripts should not exceed 5000 words, and shorter manuscripts (e.g., 3000 words) are preferred. Each article should contain the following major headings: Introduction (preceded by arabic number 1.), Methods (preceded by number 2.), Results (preceded by number 3.), Discussion (preceded by number 4.), Acknowledgment (optional section following the discussion, which should not be preceded by a numeral), and References (should not be preceded by a numeral).

Subheadings should follow the numbering system used in the major heading; for example, the subheading "Subjects" within the Methods section should be flush left on a separate line and designated 2.1., the subheading "Procedures" should be designated 2.2., etc.

Lower level headings, if required, should also be numbered (e.g., "2.1.1. Patients." as a lower order heading under "2.1. Subjects."). Only the first letter of the first word of each heading should be capitalized.

The use of abbreviations within the text should be minimized, and each abbreviation, when introduced, must be defined and used consistently thereafter. Systeme International measurements should be used. For products or instruments (do not abbreviate) used in the research reported, provide the name, city and country of the supplier in parentheses. All tables and figures must be referred to in the text.

Manuscript categories

Research Articles. Although exceptions will be considered, manuscripts should not exceed 5000 words, and shorter manuscripts (e.g., 3000 words) are preferred. Each article should contain the following major headings: Introduction (preceded by arabic number 1.), Methods (preceded by number 2.), Results (preceded by number 3.), Discussion (preceded by number 4.), Acknowledgment (optional section following the discussion, which should not be preceded by a numeral), and References (should not be preceded by a numeral). Subheadings should follow the numbering system used in the major heading; for example, the subheading "Subjects" within the Methods section should be flush left on a separate line and designated 2.1., the subheading "Procedures" should be designated 2.2., etc. Lower level headings, if required, should also be numbered (e.g., "2.1.1. Patients." as a lower order heading under "2.1. Subjects."). Only the first letter of the first word of each heading should be capitalized.
**Short communications.** Short communications (formally called Brief reports) should not exceed 1500 words, including a 100-word abstract, 3 keywords, text, and references plus 1 table or 1 figure.

**Case reports.** Case reports will only be considered as Correspondence (see following instructions.)

**Correspondence** Correspondence items (formally Letters to the Editor) should be 750-1000 words or less. It should not include a title page, abstract or key words. Authors’ names and affiliations should be listed at the end of the letter, along with the corresponding author's email address. There should be no more than 5 references, and no tables or figures.

**Manuscript categories**

**Conflict of interest.** All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three (3) years of beginning the work submitted that could inappropriately influence, or be perceived to influence, their work. Examples of potential conflicts of interest that should be disclosed include employment, consultancies, stock ownership (except for personal investment purposes equal to the lesser of one percent (1%) or USD 5000), honoraria, paid expert testimony, patent applications, registrations, and grants. If there are no conflicts of interest, authors should state that there are none.

**Abbreviations.** Define abbreviations at their first occurrence in the article. Abbreviations should be defined when they first occur in the abstract, in the text, and also in tables and figure legends. Once an abbreviation has been introduced in the main body of the text, it should be used throughout.

**Statistical reporting.** Statistical reporting should be complete, including at a minimum name of statistical test, test value, degrees of freedom where appropriate, and p-value. Italic font should be used for n (sample size) and statistical terms, e.g., t, r, F, U, p.

**Submission of manuscripts**

Psychiatry Research proceeds totally online via an electronic submission system. In case you do not have an Internet connection, please contact the Managing Editor for alternative instructions. By accessing the online submission at https://www.editorialmanager.com/psy/default.aspx you will be guided stepwise through the creation and uploading of the various files. Authors will be requested to direct the manuscripts to the most appropriate Section/Category of research to assist in editor assignment.

**NOTE TO AUTHORS:** Psychiatry Research has a separate section to which neuroimaging-related articles should be submitted. All articles about MRI, PET, fMRI, SPECT, MEG and topographic EEG should be submitted to the Neuroimaging Section: https://www.editorialmanager.com/psyn/default.aspx.

**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 on Ethics in publishing.

Studies in humans and animals
If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. The manuscript should be in line with the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals and aim for the inclusion of representative human populations (sex, age and ethnicity) as per those recommendations. The terms sex and gender should be used correctly.

Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Research Council’s Guide for the Care and Use of Laboratory Animals and the authors should clearly indicate in the manuscript that such guidelines have been followed. The sex of animals must be indicated, and where appropriate, the influence (or association) of sex on the results of the study.

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 anonymized) or the manuscript file (if single anonymized). If there are no interests to declare then please state this: 'Declarations of interest: none'. 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.

Declaration of generative AI in scientific writing
The below guidance only refers to the writing process, and not to the use of AI tools to analyse and draw insights from data as part of the research process.

Where authors use generative artificial intelligence (AI) and AI-assisted technologies in the writing process, authors should only use these technologies to improve readability and language. Applying the technology should be done with human oversight and control, and authors should carefully review and edit the result, as AI can generate authoritative-sounding output that can be incorrect, incomplete or biased. AI and AI-assisted technologies should not be listed as an author or co-author, or be cited as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans, as outlined in Elsevier’s AI policy for authors.

Authors should disclose in their manuscript the use of AI and AI-assisted technologies in the writing process by following the instructions below. A statement will appear in the published work. Please note that authors are ultimately responsible and accountable for the contents of the work.
Disclosure instructions
Authors must disclose the use of generative AI and AI-assisted technologies in the writing process by adding a statement at the end of their manuscript in the core manuscript file, before the References list. The statement should be placed in a new section entitled ‘Declaration of Generative AI and AI-assisted technologies in the writing process’.

Statement: During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

This declaration does not apply to the use of basic tools for checking grammar, spelling, references etc. If there is nothing to disclose, there is no need to add a statement.

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 compliance, your article may be checked by Crossref Similarity Check and other originality or duplicate checking software.

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. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability or health condition unless they are relevant and valid. When coding terminology is used, we recommend to avoid offensive or exclusionary terms such as "master", "slave", "blacklist" and "whitelist". We suggest using alternatives that are more appropriate and (self-) explanatory such as "primary", "secondary", "blocklist" and "allowlist". These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

Reporting sex- and gender-based analyses
Reporting guidance
For research involving or pertaining to humans, animals or eukaryotic cells, investigators should integrate sex and gender-based analyses (SGBA) into their research design according to funder/sponsor requirements and best practices within a field. Authors should address the sex and/or gender dimensions of their research in their article. In cases where they cannot, they should discuss this as a limitation to their research’s generalizability. Importantly, authors should explicitly state what definitions of sex and/or gender they are applying to enhance the precision, rigor and reproducibility of their research and to avoid ambiguity or conflation of terms and the constructs to which they refer (see Definitions section below). Authors can refer to the Sex and Gender Equity in Research (SAGER) guidelines and the SAGER guidelines checklist. These offer systematic approaches to the use and editorial review of sex and gender information in study design, data analysis, outcome reporting and research interpretation - however, please note there is no single, universally agreed-upon set of guidelines for defining sex and gender.

Definitions
Sex generally refers to a set of biological attributes that are associated with physical and physiological features (e.g., chromosomal genotype, hormonal levels, internal and external anatomy). A binary sex categorization (male/female) is usually designated at birth ("sex assigned at birth"), most often based solely on the visible external anatomy of a newborn. Gender generally refers to socially constructed roles, behaviors, and identities of women, men and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society. Sex and gender are often incorrectly portrayed as binary (female/male or woman/man) and unchanging whereas these constructs actually exist along a spectrum and include additional sex categorizations and gender identities such as people who are intersex/have differences of sex development (DSD) or identify as non-binary. Moreover, the terms "sex" and "gender" can be ambiguous—thus it is important for authors to define the manner in which they are used. In addition to this definition guidance and the SAGER guidelines, the resources on this page offer further insight around sex and gender in research studies.

**Author contributions**

For transparency, we require corresponding authors to provide co-author contributions to the manuscript using the relevant CRediT roles. The CRediT taxonomy includes 14 different roles describing each contributor’s specific contribution to the scholarly output. The roles are: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; and Writing - review & editing. Note that not all roles may apply to every manuscript, and authors may have contributed through multiple roles. More details and an example.

**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.

**Article transfer service**

This journal uses the Elsevier Article Transfer Service to find the best home for your manuscript. This means that if an editor feels your manuscript is more suitable for an alternative journal, you might be asked to consider transferring the manuscript to such a journal. The recommendation might be provided by a Journal Editor, a dedicated Scientific Managing Editor, a tool assisted recommendation, or a combination. If you agree, your manuscript will be transferred, though you will have the opportunity to make changes to the manuscript before the submission is complete. Please note that your manuscript will be independently reviewed by the new journal. More information.

**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 a '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, it is recommended to state this.

**Open access**
Please visit our Open Access page for more information.

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.

**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.

Submit your article

Suggesting reviewers
Please submit the names and institutional e-mail addresses of several potential reviewers.

You should not suggest reviewers who are colleagues, or who have co-authored or collaborated with you during the last three years. Editors do not invite reviewers who have potential competing interests with the authors. Further, in order to provide a broad and balanced assessment of the work, and ensure scientific rigor, please suggest diverse candidate reviewers who are located in different countries/regions from the author group. Also consider other diversity attributes e.g. gender, race and ethnicity, career stage, etc. Finally, you should not include existing members of the journal's editorial team, of whom the journal are already aware.

Note: the editor decides whether or not to invite your suggested reviewers.

Please submit, with the manuscript, the names, addresses and e-mail addresses of five potential referees. Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.

**Editorial Policy**
Submitted manuscripts will be reviewed anonymously by at least two referees. Should a revised manuscript be required by the editors, the authors are requested to resubmit their revised manuscript to the journal within 6 months time. Studies on humans submitted to the journal must comply with
the principles laid down in the Declaration of Helsinki (Br Med J 1964; 2: 177-178). The editors retain the right to reject papers on the grounds that, in their opinion, the ethical justification is questionable. Manuscripts may be edited to improve clarity and expression.

Manuscripts that are not published and that are not resubmitted in revised form will be destroyed within 1 year of the date of submission.

**PREPARATION**

**Queries**

For questions about the editorial process (including the status of manuscripts under review) or for technical support on submissions, please visit our [Support Center](https://www.elsevier.com/locate/psychres).

**Peer review**

This journal operates a single anonymized 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. Editors are not involved in decisions about papers which they have written themselves or have been written by family members or colleagues or which relate to products or services in which the editor has an interest. Any such submission is subject to all of the journal's usual procedures, with peer review handled independently of the relevant editor and their research groups. More information on types of peer review.

**Use of word processing software**

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

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

**Article structure**

**Subdivision - numbered sections**

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

**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 example Highlights.

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

**Abstract**

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

**Graphical abstract**

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

**Keywords**

Immediately after the abstract, provide a maximum of 20 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Do not repeat words found in the title of the manuscript. 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.

In the abstract, define all abbreviations so that electronic searches for commonly used abbreviations or the full name can be successful. Avoid abbreviations unique to the current article so as to widen the circle of readers. We recognize that many abbreviations or acronyms may be more familiar to the reader than the full name. However abbreviations and acronyms used by relatively few other published reports or abbreviations with several alternate meanings in data base searches should always be spelled out throughout the report.

**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, it is recommended to include the following sentence:
This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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

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

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

Formats
If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.
Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.
Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
• Supply files that are too low in resolution;
• Submit graphics that are disproportionately large for the content.

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

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

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

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

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

Preprint references
Where a preprint has subsequently become available as a peer-reviewed publication, the formal publication should be used as the reference. If there are preprints that are central to your work or that cover crucial developments in the topic, but are not yet formally published, these may be referenced. Preprints should be clearly marked as such, for example by including the word preprint, or the name of the preprint server, as part of the reference. The preprint DOI should also be provided.

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.

Reference style
Text: All citations in the text should refer to:
1. Single author: the author's name (without initials, unless there is ambiguity) and the year of publication;
2. Two authors: both authors' names and the year of publication;
3. Three or more authors: first author's name followed by 'et al.' and the year of publication.
Citations may be made directly (or parenthetically). Groups of references can be listed either first alphabetically, then chronologically, or vice versa.
Examples: 'as demonstrated (Allan, 2000a, 2000b, 1999; Allan and Jones, 1999).... Or, as demonstrated (Jones, 1999; Allan, 2000).... Kramer et al. (2010) have recently shown ...'
List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.
Examples:
Reference to a journal publication:
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 software:

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, which may also include 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).

Research Elements
This journal enables you to publish research objects related to your original research – such as data, methods, protocols, software and hardware – as an additional paper in a Research Elements journal.

Research Elements is a suite of peer-reviewed, open access journals which make your research objects findable, accessible and reusable. Articles place research objects into context by providing detailed descriptions of objects and their application, and linking to the associated original research articles. Research Elements articles can be prepared by you, or by one of your collaborators.

During submission, you will be alerted to the opportunity to prepare and submit a manuscript to one of the Research Elements journals.

More information can be found on the Research Elements page.

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

AFTER ACCEPTANCE
Online proof correction
To ensure a fast publication process of the article, we kindly ask authors to provide us with their proof corrections within two days. Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors. If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

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

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

**AUTHOR INQUIRIES**
Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch. You can also check the status of your submitted article or find out when your accepted article will be published.

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