DESCRIPTION

Psychoneuroendocrinology publishes papers dealing with the interrelated disciplines of psychology, neurobiology, endocrinology, immunology, neurology, and psychiatry, with an emphasis on multidisciplinary studies aiming at integrating these disciplines in terms of either basic research or clinical implications. One of the main goals is to understand how a variety of psychobiological factors interact in the expression of the stress response as it relates to the development and/or maintenance of neuropsychiatric illnesses. The journal is international and comprises original research papers, reviews of an area of the literature, or at an appropriate stage in the development of the author’s own work, commentaries in areas of current interest, short communications and book reviews. Although reviews, editorials and commentaries are usually by invitation, interested authors can contact one of the Co-Editors-in-Chief to discuss the suitability of topics for either category of manuscripts.

Authors are also welcome to submit their manuscripts to the journal’s open access companion title, Comprehensive Psychoneuroendocrinology.

AUDIENCE

Psychiatrists, Psychologists, Neurologists, Immunologists and Endocrinologists in basic and clinical research.

IMPACT FACTOR

2018: 4.013 © Clarivate Analytics Journal Citation Reports 2019
ABSTRACTING AND INDEXING

Current Contents
Current Contents - Life Sciences
Research Alert
SIIC Data Bases
Elsevier BIOBASE
Chemical Abstracts
Embase
Psychology Abstracts
Science Citation Index
PsycINFO
PsyclIT CD-ROM
Web of Science
Scopus
PubMed/Medline

EDITORIAL BOARD

Editors-in-Chief
Robert Dantzer, University of Texas MD Anderson Cancer Center - Symptom Research, 1400 Pressler Street, Houston, Texas, TX 77030, United States, Fax: +1 713 745 3475
Isabella Heuser, Charite University Hospital Berlin Campus Benjamin Franklin, Charité-Campus Benjamin Franklin, Hindenburgdamm 3, D-14195, Berlin, Germany, Fax: +49 (30) 450 517930

Editorial Assistant to Isabella Heuser, MD, PhD
Julia Kordes, Charite University Hospital Berlin, 10117, Berlin, Germany

Editorial Assistant to Robert Dantzer
Rose-Marie Bluthé, Résidence Robert Delaunay - Appt 52, 73 Rue Achille Viadieu, 31400 Toulouse, France

Scientific Advisory Board
Sue Carter, Atlantic Beach, Florida, United States
Angela Clow, University of Westminster, London, United Kingdom
Jacques Epelbaum, University of Paris, Paris, France
Megan Gunnar, University of Minnesota, Minneapolis, Minnesota, United States
Ned H. Kalin, Wisconsin Psychiatric Institute and Clinics, Madison, Wisconsin, United States
Janice Kiecolt-Glaser, Ohio State University College of Medicine, Columbus, Ohio, United States
Ron de Kloet, Leiden University, Leiden, Netherlands
Bruce McEwen†, The Rockefeller University, New York, New York, United States
Charles B. Nemeroff, The University of Texas at Austin, Austin, Texas, United States
David Rubinow, National Institute of Mental Health, Bethesda, Maryland, United States
Alan F. Schatzberg, Stanford University School of Medicine, Stanford, California, United States
Andrew Steptoe, University College London, London, United Kingdom

Editorial Board
David Abbott, Wisconsin National Primate Research Center, Madison, Wisconsin, United States
James Abelson, University of Michigan, Ann Arbor, Michigan, United States
Elisabeth Binder, Max-Planck-Institute for Psychiatry, Munich, Germany
Jan Born, University of Tübingen Institute for Medical Psychology and Behavioural Neurobiology, Tübingen, Germany
Peter A. Bos, Leiden University, Leiden, Netherlands
Tony W. Buchanan, Saint Louis University, Saint Louis, Missouri, United States
Claudia Buss, Charite University Hospital Berlin Institute of Clinical Psychology, Berlin, Germany
Justin Carré, Nipissing University, North Bay, Ontario, Canada
Lisa Christian, OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER, Columbus, Ohio, United States
Christopher Coe, University of Wisconsin-Madison Harlow Center for Biological Psychology
Ted Dinan, University College Cork National University of Ireland, Cork, Ireland
Beate Ditzen, Heidelberg University, Heidelberg, Germany
Fabrice Duval, Rouffach Hospital Centre, Rouffach, France
Ulrike Ehler, Universität Zürich Psychologisches Institut – Klinische Psychologie und Psychotherapie, Zürich, Switzerland
Veronika Engert, University Hospital Jena Clinic of Psychiatry and Psychotherapy, Jena, Germany
Sonja Entringer, Charité University Hospital Institute of Medical Psychology, Berlin, Germany
Christopher P. Fagundes, Rice University, Houston, Texas, United States
Douglas Granger, University of California Irvine, Irvine, California, United States
Christine Heim, Charite University Hospital Berlin, Berlin, Germany
James Herman, University of Cincinnati, Cincinnati, Ohio, United States
Jack van Honk, Utrecht University, Utrecht, Netherlands
Daniela Jezova, Slovak Academy of Sciences, Bratislava, Slovakia
Robert-Paul Juster, University of Montreal, Montréal, Quebec, Canada
Robert-Paul Juster, University of Montreal, Montréal, Quebec, Canada
Michael Kaess, University of Bern, Bern, Switzerland
Keith Kendrick, University of Electronic Science and Technology of China, Chengdu, China
Golam Khandaker, University of Cambridge Department of Psychiatry, Cambridge, United Kingdom
Susan Lutgendorf, The University of Iowa, Iowa City, Iowa, United States
Stefania Maccari, University of Lille, Lille, France
Andreas Menke, University Hospital Wurzburg Clinic for Psychiatry Psychosomatic Medicine and Psychotherapy, Wuerzburg, Germany
Andrew Miller, Emory University School of Medicine, Atlanta, Georgia, United States
Błażej Misiak, Wroclaw Medical University, Department of Genetics, Wroclaw, Poland
Valeria Mondelli, King's College London, London, United Kingdom
Palmiero Monteleone, University of Salerno, Fisciano, Italy
Urs Nater, University of Vienna, Wien, Austria
Inga Neumann, University of Regensburg, Regensburg, Germany
Christian Otte, Charite University Hospital Berlin, Berlin, Germany
Carmine M. Pariante, King's College London Institute of Psychiatry Psychology and Neuroscience The Maurice Wohl Clinical Neuroscience Institute, London, United Kingdom
Karen Parker, Stanford University School of Medicine, Stanford, California, United States
Jens Pruessner, University of Konstanz, Konstanz, Germany
Shaozheng Qin, Beijing Normal University, Beijing, China
Nicolas Rohleder, Friedrich-Alexander-University Erlangen-Nurnberg Department of Psychology and Sport Sciences, Erlangen, Germany
Benno Roozendaal, Radboud University, Department of Cognitive Neuroscience, Nijmegen, Netherlands
Carmen Sandi, Federal Polytechnic School of Lausanne, Lausanne, Switzerland
Robert Sapolsky, Stanford University School of Medicine, Stanford, California, United States
Jonathan Savitz, The University of Tulsa, Tulsa, Oklahoma, United States
Alan F. Schatzberg, Stanford University School of Medicine, Stanford, California, United States
Jay Schulkin, Georgetown University Medical Center, Washington, District of Columbia, United States
Elizabeth Shirtcliff, Iowa State University, Ames, Iowa, United States
Tom Smeets, Tilburg University, Tilburg, Netherlands
Lorey Takahashi, University of Hawai’i at Manoa, Honolulu, Hawaii, United States
Oliver Wolf, Ruhr University Bochum, Bochum, Germany
Jianhui Wu, Shenzhen University, Shenzhen, China
GUIDE FOR AUTHORS

Introduction

Psychoneuroendocrinology publishes papers dealing with the interrelated disciplines of psychology, neurobiology, endocrinology, immunology, neurology, and psychiatry, with an emphasis on multidisciplinary studies aiming at integrating these disciplines in terms of either basic research or clinical implications. One of the main goals is to understand how a variety of psychobiological factors interact in the expression of the stress response as it relates to the development and/or maintenance of neuropsychiatric illnesses. The journal is international and comprises original research papers, reviews of an area of the literature, or at an appropriate stage in the development of the author's own work, commentaries in areas of current interest, short communications and book reviews. Other forms of publication (e.g., editorial, opinion, news, perspective) are up to the editors' discretion.

Editorial Offices

Robert Dantzer, DVM, PhD
Editorial Assistant
Rose-Marie Bluthé
Résidence Robert Delaunay - Appt 52
73 Rue Achille Vladiu
31400 Toulouse
France
Fax: +33 5 61 52 20 49
E-mail: rosemarie.bluthe31@orange.fr

Isabella Heuser, MD, PhD,
Editorial Assistant
Julia Kordes
Charité - University Medicine Berlin
Department of Psychiatry and Psychotherapy-Campus Benjamin Franklin
Hindenburgdamm 30 | 12203 Berlin
Fax: +49 (30) 450 - 517 930
E-mail: pnec@charite.de

Types of Contributions

Original research papers: An original research paper should not exceed 6000 words. For the introduction there is a maximum of 1000 words and for the discussion a maximum of 2000 words. There should be no more than 6 illustrations, figures and/or tables (combined total). The reference section is limited to 50 references for the initial submission, subsequent revisions may have more references if necessary.

Review papers: Review papers of specialized topics within the scope of the journal should not exceed 8000 words. There should be not more than 6 illustrations, figures and/or tables (combined total). The reference section is limited to 100 references for the initial submission, subsequent revisions may have more references if necessary.

Short communications: describe new methods or the results of experiments that can be reported briefly. A short communication is 2000 words or less with a maximum of two illustrations (figures or tables). The reference section is limited to 15 references for the initial submission, subsequent revisions may have more references if necessary.

Book Form: Books for review may be sent to Dr. Isabella Heuser or Dr. Robert Dantzer. Authors interested in reviewing a particular book should communicate directly with one of them.

Letters to the Editor: Submission of correspondence that provides a forum for the discussion of recent articles published in Psychoneuroendocrinology should not exceed 500 words (including references). Tables and/or figures should not be used. Letters critical of an article published in the
Journal must be received within 8 weeks of the article's publication; letters from outside the United States must be received within 12 weeks. Letters received after the deadline will not be considered for publication and those accepted will be sent to the authors of the target article for reply.

**Submission checklist**

Authors are asked to use the Submission Checklist to carry out a final check of their submission before sending it to the journal for review. This checklist must be included with the cover letter.

One author should be designated as the corresponding author with contact details, but all co-authors should indicate that they approve of the cover letter's statements and should also give their complete affiliation and their electronic address:

- 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)
- Manuscript does not contain any instance of plagiarism including self-plagiarism
- 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 (minimum of 5 suggestions)

For further information, visit our Support Center.

**Ethics in publishing**

For information on Ethics in publishing and Ethical guidelines for journal publication see [https://www.elsevier.com/publishingethics](https://www.elsevier.com/publishingethics) and [https://www.elsevier.com/journal-authors/ethics](https://www.elsevier.com/journal-authors/ethics).

**Review and Appeal Procedures**

Most editorial decisions are based on the results of reviews by one or more referees. However, if in the judgment of the editor a manuscript is clearly unsuitable for the journal, it will be rejected without referee review. Authors may appeal a rejection of their manuscript by the editor if they believe a pertinent point was overlooked or misunderstood by the reviewers, or the editor misinterpreted the reviewers' comments. Authors need to do so by contacting the editor and providing him with the relevant documentation. If they still believe they have received an unfair decision they can appeal to the other editor of the journal after having informed the initial editor of their decision, in which case the editor initially in charge of the manuscript will forward the file to the editor having received the appeal. Such an appeal must be based on the fairness of the procedures followed, and must not be a request for another scientific review. The questions to be answered in this review are: Were the editorial procedures followed appropriately and did the paper receive a fair hearing? A decision by the editor having received the appeal is the final level of review.

**BEFORE YOU BEGIN**

**General Reporting Guidelines**

Authors are encouraged to follow published standard reporting guidelines for the study discipline. Many of these can be found at the [EQUATOR website](https://www.equator-network.org)
Type of study

Guidelines for Specific Types of Studies

Human subjects research

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.

Animal subjects research

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 Institutes of Health guide for the care and use of Laboratory animals (NIH Publications No. 8023, revised 1978) 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.

Genetic association studies

Psychoneuroendocrinology is using the same editorial policy as Behavioral Genetics for studies on candidate gene association and candidate gene-by-environment interactions for complex traits (see Hewitt JK, Behav Genet, 2012, 42, 1-2). Genetic association studies will only be considered for publication in the journal if (1) they have one or more of the characteristics listed by Hewitt in page 1 of his paper and (2) the authors have followed the STREGA reporting guidelines.

Neuroimaging studies

Studies involving fMRI or other neuroimaging methods must be reported according to the guidelines proposed by Poldrack RA et al., Neuroimage, 2008, 40, 409-14.

Randomized controlled trials

Articles reporting the results of randomized controlled trials (RCTs) should follow the guidelines of the CONSORT statement. Authors should complete both the CONSORT flow diagram and checklist, Both should be included as supplementary material during the submission process. The complete CONSORT guidelines can be found at http://www.consort-statement.org.

Studies of the psychological effect of neuropeptides and cytokines

Studies on the psychological effect of neuropeptides and cytokines need to be justified by a clear description of the psychological process under consideration and the way the obtained results allow to ensure that this specific psychological process rather than a performance factor is effectively modified by the factor under study. Dose-response studies are preferred and if a single dose is used the choice of this dose and its protocol of administration need to be fully justified. Justification of the sample size is required.

Neuroendocrine and neuroimmune studies

All neuroendocrine or neuroimmune endpoints measured by a commercial kit or other assays must be accompanied by the report of the sensitivity of the technique and the within- and between-assay coefficients of variation calculated on the data obtained by the authors themselves. The procedure used to account for data lower than the minimum detection level of the assay and the number of such cases need to be precisely reported.

Studies assessing the cortisol awakening response (CAR)

It is strongly recommended that the methodology used to assess the cortisol awakening response in humans conforms to the consensus guidelines elaborated by a group of experts in this field (see Table 6 in https://doi.org/10.1016/j.psyneuen.2015.10.010). Significant deviations from these guidelines should be made explicit in the method section of the manuscript and justified.
**Statistical Guidelines**

In order to ensure that their studies are not underpowered, authors must justify the sample size and provide a power analysis (see https://psycnet.apa.org/record/2018-36802-001). In addition, a clear description of the study design, rules for stopping data collection, data inclusion/exclusion criteria, definition of outliers, selection of endpoints and number and composition of replicates must be provided. It is recommended to specify the number of subjects under investigation in the abstract.

For statistical analysis, authors should describe statistical methods with enough detail to enable readers with access to the original data to verify the results. Ways of checking data for normality should be described when statistical tests appropriate for normally distributed variables are used. Multiple comparisons should include a clear description of adjustments made to alpha levels or other correction procedures. Novel or highly complex statistical methods or computational algorithms should be adequately described. Results of statistical tests must be reported in full with no more than two significant digits on p-values.

**Other guidelines**

**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 even partially (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.

**Policy on hosting of pre-prints on non-commercial platforms**

Posting of preprints of publications to be submitted or in the submission process to Psychoneuroendocrology has to be declared by the authors in an additional note to the manuscript with a reference to the website in which this posting has been made. The same requirement applies to data presented in part or in totality to scientific meetings and published in the form of abstracts.

**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. These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

**Author contributions**

For transparency, we encourage authors to submit an author statement file outlining their individual contributions to the paper using the relevant CRediT roles: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources;
Software; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing. Authorship statements should be formatted with the names of authors first and CRediT role(s) following.

**Authorship**

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

**Changes to authorship**

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

Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

**Article transfer service**

This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. Please note that your article will be reviewed again by the new journal.

**Copyright**

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

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

**Author rights**

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

Elsevier supports responsible sharing

Find out how you can share your research published in Elsevier journals.

**Role of the funding source**

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.
An article should be written in standard American English and should be presented in an intelligible fashion. Authors who feel their English language manuscript may require editing to eliminate possible grammatical, spelling, or usage errors may wish to use the English Language Editing service available from Elsevier’s WebShop or visit our Support Center for more information.

PREPARATION

Peer review
This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

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

Manuscripts should be prepared using a 11-point font, double-spaced with 1-in. margins on all sides. Unusual typeface is acceptable only if it is clear and legible.

Pages must be numbered and include the first author's name in the header. Acronyms must be spelled out on the first use in both the abstract and text and when used in tables or figures, in each of their legends. Gene symbols should be italicized and differentiate by species. Human symbols should be all uppercase, whereas symbols for rodents and other species should be lowercase using only an initial capital. Protein products, regardless of species, are not italicized and use all uppercase letters. Accepted manuscripts are copyedited to conform to the AMA Manual of Style

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. Provide a clear description of your working hypothesis and its justification.

Material and methods
Provide sufficient details to allow the work to be reproduced by an independent researcher. A full description of the research design and the way it has been conducted must be provided. 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. The material and methods section must contain a section describing the way the statistical analysis has been conducted.

Results
Presentation of the 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. Formulæ 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.

The title should be concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations, acronyms, and formulæ where possible. The title should be 90 characters or less.

Author names and affiliations should be listed. Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.

Corresponding author. Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that phone numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be kept up to date by the corresponding author.

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). Abbreviations and acronyms should be avoided, but if essential they must be defined at their first mention in the abstract itself.

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

Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images and in accordance with all technical requirements.

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points using American spelling (maximum 85 characters, including spaces, per bullet point). See https://www.elsevier.com/highlights for examples.

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.
Nonstandard abbreviations must be defined on their first use. 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.

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.). When available, one or more sponsor names and the sponsor country identifier. Please provide Grant number for the Grant sponsors

**Referee Suggestions**

For all new submissions (except Correspondence), authors will be required to include the full names and contact information (affiliation, e-mail, and telephone number) of 5 individuals who are especially qualified to referee the work and would not have a conflict of interest in reviewing the manuscript. Affiliations of the suggested referees should all be different, and none should have the same affiliation as any of the authors. Editors are not appropriate to suggest as a reviewer.

**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.

Footnotes should be used sparingly, if at all. Number them consecutively throughout the article, using superscript Arabic numbers. Many word-processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list. Table footnotes should be indicated with a superscript lowercase letter.

**Artwork**

Electronic artwork

General points

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

A detailed guide on electronic artwork is available.

You are urged to visit this site; some excerpts from the detailed information are given here.

Formats

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

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

- EPS (or PDF): Vector drawings, embed all used fonts.
- TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

Please do not:
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

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

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.

All publications cited in the text should be presented in a list of references following the text of the manuscript. In the text refer to the author's name (without initials) and year of publication (e.g. "Since Peterson (1993) has shown that...") or "This is in the agreement with results obtained later (Kramer, 1994)""). For three or more authors use the first author followed by "et al.", in the text. Where two or more references are cited together in the text, they should be in chronological order and separated by a semicolon (Watkins and Maier, 1994; Bluthe et al., 1999; Kubera and Maes, 2000). The list of references should be arranged alphabetically by authors' names. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. For Short Communications, the reference section is limited to 15 references.

Only published and "in press" (i.e., accepted for publication in a specific journal or book) references should appear in the reference list. The latest information on "in press" references should be provided. Any "in press" references that are relevant for reviewers to see in order to make a well-informed evaluation should be included as a separate document text file along with the submitted manuscript. Unpublished references should be cited only in text and in the following form: (A.B. Smith, C.D. Johnson, and E. Greene, unpublished observations). The form for personal communications is similar: (F.G. Jackson, personal communication). Authors are responsible for all personal communications.

Short Communications: The reference section is limited to 15 references.
Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

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

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

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

Reference style
Text: 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:

Journal abbreviations source
Journal names should be abbreviated according to the List of Title Word Abbreviations.

Video
Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the 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.

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

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

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

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

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

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.
In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

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

For more information, visit the [Mendeley Data for journals page](https://www.mendeley.com).  

**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](https://www.elsevier.com).  

**Submit your article**

**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. Both corresponding and co-authors may order offprints at any time via Elsevier’s Elsevier’s-Webshop. 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](https://www.elsevier.com)