GENERAL AND COMPARATIVE ENDOCRINOLOGY

DESCRIPTION

*General and Comparative Endocrinology* publishes articles concerned with the many complexities of vertebrate and invertebrate *endocrine systems* at the sub-molecular, molecular, cellular and organismal levels of analysis. Although by no means comprehensive, submission of manuscripts in the following areas of *endocrine science* are encouraged:

- endocrine regulation and interactions in physiological processes ("systems" biology - reproduction, body fluid homeostasis, skeletal and calcium homeostasis; gastrointestinal function; integumentary function; neurophysiology; cardiovascular function etc);
- endocrine pharmacology;
- the role of gene expression in endocrine systems;
- behavioral endocrinology;
- developmental endocrinology;
- growth factors;
- endocrine-environmental interactions;
- immuno-endocrine interactions;
- neuroendocrinology, neuropeptides, neurotransmitters;
- hormonal receptors;
- molecular evolution of hormones and gene families.

*Comparative Molecular Analyses*
- Genomics
- Proteomics
- Transcriptomics
- Metabolomics

Manuscripts that advance understanding within and between these broad disciplines are especially encouraged.

All articles published in General and Comparative Endocrinology will be immediately assigned to an issue upon acceptance, without having to wait in press. This will mean immediate publication for all authors, upon completion of post-acceptance publishing processes.

**Benefits to authors**
We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.
Please see our Guide for Authors for information on article submission. If you require any further information or help, please visit our Support Center

**IMPACT FACTOR**

2018: 2.445 © Clarivate Analytics Journal Citation Reports 2019

**ABSTRACTING AND INDEXING**

CABI Information  
Animal Behaviour Abstracts  
OCLC ArticleFirst  
Chemical Abstracts  
EBSCOhost  
Elsevier BIOBASE  
Embase  
Scopus  
Gale  
International Nuclear Information System (INIS)  
PubMed/Medline  
ProQuest  
Sage Publications  
Abstracts in Anthropology  
Biological Abstracts  
BIOSIS Previews  
Current Contents  
Science Citation Index Expanded  
Web of Science  
Zoological Record  
PubMed/Medline

**EDITORIAL BOARD**

*Editors-in-Chief*

**D.M. Power**, University of the Algarve Faculty of Science and Technology, Campus de Gambelas, 8005 - 139, Faro, Portugal  
**M.A. Sheridan**, TEXAS TECH UNIVERSITY, Lubbock, Texas, 79415, United States

*Associate Editors*

**A. Canario**, University of Algarve, Faro, Portugal  
**O. Carnevali**, Polytechnic University of Marche, Ancona, Italy  
**J. Carr**, TEXAS TECH UNIVERSITY, Lubbock, Texas, United States  
**J. Chang**, University of Alberta, Edmonton, Alberta, Canada  
**R.M. Dores**, University of Denver, Denver, Colorado, United States  
**W. Ge**, University of Macau, N6-5027, Avenida da Universidade, Macau, China  
**E. Jönsson Bergman**, University of Gothenburg, Goteborg, Sweden  
**R. Londraville**, University of Akron, Akron, Ohio, United States  
**S.D. McCormick**, US Geological Survey S O Conte Anadromous Research Center, Turners Falls, Massachusetts, United States  
**R. Pierantoni**, University of Campania Luigi Vanvitelli, Napoli, Italy  
**L.M. Romero**, Tufts University, Medford, Massachusetts, United States  
**A. Takahashi**, Kitasato University School of Marine Biosciences Graduate School of Marine Biosciences, Ofunato, Japan  
**V. Trudeau**, University of Ottawa, Ottawa, Ontario, Canada  
**G. Van Der Kraak**, University of Guelph, Guelph, Ontario, Canada  
**J. Vanden Broeck**, KU Leuven Association, Leuven, Belgium  
**H. Volkoff**, Memorial University of Newfoundland, St John’s, Newfoundland and Labrador, Canada  
**R.D. Watson**, University of Alabama at Birmingham, Birmingham, Alabama, United States
Editorial Board

S.K. Boyd, University of Notre Dame, Notre Dame, Indiana, United States
D. Bradshaw, University of Western Australia School of Animal Biology, Crawley, Australia
N.R. Bury, University of Suffolk, Ipswich, United Kingdom
K.C. Chow, University of Hong Kong, Pokfulam, Hong Kong
J. F. Cockrem, Massey University, Wellington, New Zealand
J.M. Conlon, Ulster University, Coleraine, United Kingdom
D. Crews, University of Maryland Baltimore, Baltimore, Maryland, United States
J. Danks, Saint Vincent's Institute of Medical Research, Melbourne, Victoria, Australia
A. DeLoof, KU Leuven Association, Leuven, Belgium
R. Denver, University of Michigan, Ann Arbor, Michigan, United States
P. Deviche, Arizona State University, Tempe, Arizona, United States
C. Duan, University of Michigan Department of Molecular Cellular and Developmental Biology, Ann Arbor, Michigan, United States
E. Eppler, University of Zurich, Zürich, Switzerland
F.G. Gracia-Navarro, University of Cordoba, Cordoba, Spain
H.R. Habibi, University of Calgary, Calgary, Alberta, Canada
T.B. Hayes, University of California Berkeley, Berkeley, California, United States
D. Larhammar, Uppsala University, Uppsala, Sweden
R.P. Millar, University of Cape Town Institute of Infectious Disease and Molecular Medicine, Cape Town, South Africa
I.S. Parhar, Monash University - Malaysia Campus, Bandar Sunway, Malaysia
R. Patiño, TEXAS TECH UNIVERSITY, Lubbock, Texas, United States
M.C.S. Peter, University of Kerala, Thiruvananthapuram, India
J. Pitman, Victoria University of Wellington, Wellington, New Zealand
J.Y. Seong, Korea University, Seoul, Korea, Republic of
P.J. Sharp, Monash University, Clayton, Victoria, Australia
S. Sower, University of New Hampshire, Durham, New Hampshire, United States
Y. Takei, The University of Tokyo, Bunkyo-Ku, Tokyo, Japan
P. Thomas, University of Texas at Austin Marine Science Institute, Port Aransas, Texas, United States
S. Tobe, University of Toronto, Toronto, Ontario, Canada
K. Tsutsui, Waseda University Center for Advanced Biomedical Sciences, Tokyo, Japan
H. Vaudry, Rouen University, Mont-Saint-Aignan, France
J. Wingfield, University of Washington, Seattle, Washington, United States
Y. Zhu, East Carolina University, Greenville, North Carolina, United States
Y. Zohar, University of Maryland Baltimore, Baltimore, Maryland, United States
GUIDE FOR AUTHORS

INTRODUCTION

*General and Comparative Endocrinology* publishes articles concerned with the many complexities of vertebrate and invertebrate endocrine systems at the sub-molecular, molecular, cellular and organismal levels of analysis. Although by no means comprehensive, submission of manuscripts in the following areas of endocrine science are encouraged:

- endocrine regulation and interactions in physiological processes ("systems" biology - reproduction, body fluid homeostasis, skeletal and calcium homeostasis; gastrointestinal function; integumentary function; neurophysiology; cardiovascular function etc);
- endocrine pharmacology;
- the role of gene expression in endocrine systems;
- developmental endocrinology;
- growth factors;
- endocrine- environmental interactions;
- immuno-endocrine interactions;
- neuroendocrinology, neuropeptides, neurotransmitters;
- hormonal receptors;
- molecular evolution of hormones and gene families.

Comparative Molecular Analyses
- Genomics
- Proteomics
- Transcriptomics
- Metabolomics

Manuscripts that advance understanding within and between these broad disciplines are especially encouraged.

*General and Comparative Endocrinology* will consider for publication of research articles that address endocrinology in its widest sense, i.e. both among, and within, living organisms - vertebrate, invertebrate and plant - including their evolutionary antecedents. Original and novel information in acute, and in the longer term, evolutionary adaptive homeostasis are of especial interest to the journal.

The European Society for Comparative Endocrinology, North American Society for Comparative Endocrinology, The Division of Comparative Endocrinology of the Society for Integrative and Comparative Biology, the Asia and Oceania Society for Comparative Endocrinology and the Japan Society for Comparative Endocrinology are affiliated to *General and Comparative Endocrinology*.

Types of article

- **Regular article** - Full-length original research papers, reporting novel findings in all endocrinology related fields.

- **Short Communications** – these are articles that present a new technique, idea or concept and are typically 10 double spaced pages in length.

- **Communications in Comparative Molecular Analyses** - these are original research manuscripts ranging from 10 to 24 double spaced pages which report studies deploying any kind of "omics" technologies, which are relevant to the endocrine literature (i.e., results of small to high throughput studies). Manuscripts can report the analysis of primary data or in silico analysis or meta-analysis of data deposited in databases and should frame the significance of the data in light of comparative endocrinology and endocrine function.

- **Review** - topics of interest to its broad readership. Review submissions are typically 20-25 double spaced pages in length.
Mini-Review - are focused on a particular topic of interest. Mini-reviews submissions are typically 12 double spaced pages in length.

Editorial – these are typically preface to Special Issues but we welcome suggestions for opinion pieces that discuss issues (scientific, social or political) that affect research in the community. Either type of editorial should be 2 to 3 double spaced pages.

Book reviews – This is a brief essay of 2 double spaced pages critically evaluating the contribution of a recently published book. We also welcome book review essays revolving around descriptions and critiques of a group of published books that serves as springboards for discussions of topics that emerge as one considers overlaps and gaps between the books in question. The length should be commensurate with the number of books reviewed (eg. 2 books would be 4 double spaced pages).

Memorials – of notable comparative endocrinologists, outlining their career and indicating their main contributions to the field. The length should be up to 2 double spaced pages and include a photograph.

Special Issues - The journal welcomes proposals for special issues on topics that fall within the scope of the journal. Those wishing to guest edit a special issue should prepare a proposal that:
• Sets out the importance of the area and explains the anticipated contribution of the special issue in advancing understanding in this area
• Identifies papers and authors for possible inclusion in the special issue and an indication of the time-scale in which the special issue could be produced.

Proposals should be sent to the Journal Manager, GCE@elsevier.com

Submission checklist
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:
One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address

All necessary files have been uploaded:
Manuscript:
• Include keywords
• All figures (include relevant captions)
• All tables (including titles, description, footnotes)
• Ensure all figure and table citations in the text match the files provided
• Indicate clearly if color should be used for any figures in print
Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
• Manuscript has been 'spell checked' and 'grammar checked'
• All references mentioned in the Reference List are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Internet)
• A competing interests statement is provided, even if the authors have no competing interests to declare
• Journal policies detailed in this guide have been reviewed
• Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

BEFORE YOU BEGIN
Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.
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 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.

Declaration of interest

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

Submission declaration and verification

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

Preprint Repositories

General and Comparative Endocrinology accepts submissions that have been previously posted to a preprint server. Authors submitting preprints are asked to inform the editors in their cover letter and identify the site where the preprint is currently hosted. If the author's paper is accepted by General and Comparative Endocrinology, the journal requires that the author update the preprint to link to the final publication in General and Comparative Endocrinology. For more information please visit: https://www.elsevier.com/about/policies/sharing

Preprints

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

Use of inclusive language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').
**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. 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 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. 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 an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

**Author rights**

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

Elsevier supports responsible sharing

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

**Role of the funding source**

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.
Funding body agreements and policies
Elsevier has established agreements and developed policies to allow authors whose articles appear in journals published by Elsevier, to comply with potential manuscript archiving requirements as specified as conditions of their grant awards. To learn more about existing agreements and policies please visit https://www.elsevier.com/fundingbodies.

US National Institutes of Health (NIH) voluntary posting ("Public Access") policy.
As a service to our authors, Elsevier will deposit to PubMed Central (PMC) author manuscripts on behalf of Elsevier authors reporting NIH funded research. This service is a continuation of Elsevier's 2005 agreement with the NIH when the NIH introduced their voluntary 'Public Access Policy.'

The service will help authors comply with the National Institutes of Health (NIH) revised "Public Access Policy," effective April 7, 2008. The NIH's revised policy requires that NIH-funded authors submit to PubMed Central (PMC), or have submitted on their behalf, their peer-reviewed author manuscripts, to appear on PMC no later than 12 months after final publication.

Elsevier will send to PMC the final peer-reviewed manuscript, which was accepted for publication and sent to Elsevier's production department, and that reflects any author-agreed changes made in response to peer-review comments. Elsevier will authorize the author manuscript's public access posting 12 months after final publication. Following the deposit by Elsevier, authors will receive further communications from Elsevier and NIH with respect to the submission.

Authors are also welcome to post their accepted author manuscript on their personal or institutional web site. Please note that consistent with Elsevier's author agreement, authors should not post manuscripts directly to PMC or other third party sites. Individual modifications to this general policy may apply to some Elsevier journals and society publishing partners.

As a leading publisher of scientific, technical and medical (STM) journals, Elsevier has led the industry in developing tools, programs and partnerships that provide greater access to, and understanding of, the vast global body of STM information. This service is an example of Elsevier willingness to work cooperatively to meet the needs of all participants in the STM publishing community.

Open access
Please visit our Open Access page from the Journal Homepage 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
Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. To submit your article please got to https://www.evise.com/profile/#/GCE/login. The system automatically converts source files to a single PDF file of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF files at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail removing the need for a paper trail.

Referees
Please submit the names and institutional e-mail addresses of several potential referees. For more details, visit our Support site. Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.
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.

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

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

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

Material and methods Guidelines for Immunohistochemistry & RTqPCR assays

1. Immunohistochemistry
In the Methods section, for antibodies it is important to indicate the origin (eg. human, rat, fish) and sequence of the immunogen against which the animal was immunized. If using commercially generated antisera provide the name of company that made the antisera, the species that was immunized and whether the reagent is a monoclonal or polyclonal antibody. It is important to provide characterization information which can include Western blot analysis, radioimmunoassay or ELISA. Reference to previous publications is acceptable as long as the above characterizations have been performed in those publications. Controls may include pre-adsorption with the original antigen if the antigen is available and/or incubation with secondary antibody only. For analyses that involve transfected cells, the controls should include: incubation of the non-transfected cell line with primary and secondary antibody, and incubation of the transfected cells with secondary antibody only.

2. What to look for when evaluating reviewers comments about real time quantitative PCR (RTqPCR) assays
There is considerable debate and an ever growing literature about the "best way" to perform real time quantitative PCR (RTqPCR). One publication which gives extensive and helpful guidelines about RTqPCR is Nolan et al., 2006 Nature protocols 1; 1559 and if you are looking for formal guidelines and recommendations consult Clinical Chemistry (Bustin et al., 2009 55, 611). Some simple guidelines:
1. The Dnase treatment and protocol should be indicated.
2. The primers chosen for reverse transcription should be indicated.
3. The RTqPCR primers and probe sequence (if used), the amplicon size along with the mix and supplier should be indicated.
4. The sequence accession number should be provided.
5. Steps taken to optimize and validate RTqPCR assays should be indicated (eg. primer concentration, MgCl2 concentration, dNTP concentration, melt temperature) and melting curve dynamics and absence of primer dimers should be confirmed.
6. The complete RTqPCR thermocycle should be provided.
7. The specificity of the RTqPCR assay should have been established by sequencing the reaction product at least once.
8. The efficiency of the PCR reaction should be indicated (theoretically 100%), as should the method of validation (eg. cDNA or standard dilution curves).
9. The choice of gene(s) for normalization should be justified and they should be referred to as reference genes and not as housekeeping genes. The method of normalization should be provided.
Results
Results should be clear and concise.

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

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

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 lowercase superscript letter immediately after the author’s name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author:
• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
• **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

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

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

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

Keywords
Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, ‘and’, ‘of’). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.
Abbreviations
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

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

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

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

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

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

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 disproportionally 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) in addition to color reproduction in print. Further information on the preparation of electronic artwork.

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

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

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

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

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

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

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/general-and-comparative-endocrinology
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:
- CAS (Chemical Abstracts Service): via http://www.cas.org/content/references/corejournals.

**Video**

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

**Data visualization**

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

**Supplementary material**

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

**Research data**

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

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

**Data linking**

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

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

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

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

**Mendeley Data**

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

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

**Data in Brief**

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

**Data statement**

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

**AFTER ACCEPTANCE**
**Online proof correction**
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 Author Services. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

**AUTHOR INQUIRIES**
Visit the Elsevier Support Center 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