DESCRIPTION

Bioorganic & Medicinal Chemistry Letters publishes research communications of outstanding significance and timeliness on topics at the interface of chemistry and biology, together with invited concise review articles. The journal publishes reports of experimental results in medicinal chemistry, chemical biology and drug discovery and design, emphasizing new and emerging advances and concepts in these fields. The aim of the journal is to promote a better understanding at the molecular level of life processes, and living organisms, as well as the interaction of these with chemical agents. The journal continues to be a major forum for the first publication of new chemical entities prior to them entering clinical trials.

The Journal welcomes papers on: the medicinal chemistry and associated biology (including target identification and validation) of established or new disease targets the reporting of the discovery, design or optimization of potent new compounds or biological agents the analysis and discussion of structure-activity relationships and pharmacological issues relevant to drug design and action using in vitro and in vivo models, including the use of computational techniques when closely linked to experimental data the reporting of "first-in-class" new therapeutic compounds the chemical biology or bioorganic/bioinorganic chemistry that significantly advances knowledge of a biological mechanism methodological advances that are chemistry-based and which significantly impact on medicine or biology the preparation and examination of biotherapeutics for the treatment of pathophysiological disease states the development of materials for specific therapeutic targeting

Manuscripts on phytochemistry, theoretical molecular dynamics and exclusively computational papers are out of scope. All manuscripts will be rigorously peer-reviewed by independent experts following an initial assessment by the Editors. Please note that BMCL is not suitable for straightforward reports of incremental advances. Above all the presentation of a rational basis and a sound underlying hypothesis for the work is of particular importance, whatever its exact field.

AUDIENCE

Chemists, Medicinal Chemists, Pharmacologists, Biochemists, Molecular Biologists.

IMPACT FACTOR

2017: 2.442 © Clarivate Analytics Journal Citation Reports 2018
ABSTRACTING AND INDEXING

SciSearch
MEDLINE®
EMBASE
Biochemistry and Biophysics Citation Index
Chemical Citation Index
Elsevier BIOBASE/Current Awareness in Biological Sciences
Reaxys
BIOSIS
CAB Abstracts
CAB Health
Cancerlit
Current Contents/Life Sciences
Excerpta Medica
Pascal
TOXFILE
Adis LMS Drug Alerts
Chemical Abstracts
Science Citation Index
Research Alert
Scopus

EDITORIAL BOARD

Editors
S. Neidle (Editor-in-Chief), UCL School of Pharmacy, London, UK
P. Chen (Editor), Dept. of Chemical Biology, Peking University, Beijing, China
M.D. Disney (Editor), Dept. of Chemistry, The Scripps Research Institute, Jupiter, Florida, USA
H. Kagechika (Editor), Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University (TMDU), Tokyo, Japan
D. Srinivasa Reddy (Editor), CSIR-National Chemical Laboratory, Pune, India
P.R. Bernstein (Editor Digests), PharmaB LLC, Philadelphia, Pennsylvania, USA
H. Liu (Editor), Shanghai Institute of Materia Medica (SIMM), Chinese Academy of Sciences (CAS), Shanghai, China
I. Rozas (Editor), Trinity Biomedical Sciences Institute, Trinity College, Dublin 2, Ireland

Advisory Board
C.R. Bertozzi, Stanford University, Stanford, California, USA
B.S.J. Blagg, University of Notre Dame, Notre Dame, Indiana, USA
M.-J. Blanco, Sage Therapeutics, Cambridge, MA, USA
Drug discovery and development, Medicinal Chemistry and Neuroscience
D.L. Boger, The Scripps Research Institute, La Jolla, California, USA
M. Chu-Moyer, Amgen Inc., Cambridge, Massachusetts, USA
Small molecule drug discovery, Medicinal Chemistry, Synthetic Chemistry, ADME
P. Gmeiner, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany
D. Hilvert, Organic Chemistry Laboratory, Zurich, Switzerland
M. Ishibashi, Chiba University, Chiba, Japan
Natural products chemistry based on screening study targeting signaling pathways
W.L. Jorgensen, Yale University, New Haven, Connecticut, USA
B.M. Kim, Seoul National University (SNU), Seoul, The Republic of Korea
HCV NSSA inhibition, quorum sensing inhibition and corticotropin releasing hormone receptor antagonism
M. Köhn, EMBL Heidelberg, Heidelberg, Germany
Bioorganic chemistry and Phosphatase chemical biology
K. Lackey, Medical University of South Carolina (MUSC), Charleston, South Carolina, USA
Drug Discovery, Medicinal Chemistry, Targeted Therapies
J. Lee, Seoul National University (SNU), Seoul, The Republic of Korea
Synthetic medicinal chemistry in drug discovery for Alzheimer's; Pain and Anticancer drugs
C.E. Müller, Rheinische Friedrich-Wilhelms-Universität Bonn, Bonn, Germany
G protein-coupled receptors, purine receptors, adenosine receptors, P2X receptors, P2Y receptors, adenine receptors, ectonucleotidases, assay development, radioligands, fluorescent ligands.

**H.S. Overkleeft**, Universiteit Leiden, Leiden, Netherlands

**P.G. Schultz**, The Scripps Research Institute, La Jolla, California, USA

**P.H. Seeberger**, Max Planck Institute (MPI) of Colloids and Interfaces, Potsdam, Germany

Carbohydrates, Synthesis, Glycobiology, Vaccines, Glycoproteins

**O. Seitz**, Humboldt-Universität Berlin, Berlin, Germany

**M. Shibasaki**, The University of Tokyo, Tokyo, Japan

**K. Shokat**, University of California at San Francisco (UCSF), San Francisco, California, USA

**R.B. Silverman**, Northwestern University, Evanston, Illinois, USA

**C.T. Supuran**, Università degli Studi di Firenze, Sesto Fiorentino (Firenze), Italy

**H. Takahashi**, Tokyo University of Science, Noda, Japan

axial chirality, asymmetric synthesis, conformational analysis, medicinal chemistry, carbohydrate chemistry

**S. Walker**, Harvard University, Cambridge, Massachusetts, USA

**S. Ward**, University of Sussex, Brighton, UK

medicinal chemistry, ion channels, lead optimisation, neuroscience

**P.A. Wender**, Stanford University, Stanford, California, USA

**N. Winssinger**, Université de Genève, Geneva 4, Switzerland

DNA-templated chemistry; DNA-encoded libraries (DEL); peptide nucleic acid; glycoconjugate synthesis.

**C.-H. Wong**, The Scripps Research Institute, La Jolla, California, USA

**W.-L. Zhu**, Chinese Academy of Sciences (CAS), Shanghai, China

Molecular modeling and drug design, computational biology, medicinal chemistry, phytochemistry.
GUIDE FOR AUTHORS

Your Paper Your Way
We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.
To find out more, please visit the Preparation section below.

INTRODUCTION
Bioorganic & Medicinal Chemistry Letters publishes research results of outstanding significance and timeliness in the fields of medicinal chemistry, chemical biology, bioorganic chemistry, bioinorganic chemistry, and related disciplines. Articles are in the form of communications reporting experimental or theoretical results of special interest. Hypothesis-driven theoretical studies containing complementary experimental reports are also welcome.

High-quality studies which are especially likely to meet these criteria, as compared to studies that simply report biological data for a series of newly-synthesised compounds. Examples include manuscripts on the medicinal chemistry and associated biology of established or new disease targets, that report on potent new compounds and that analyse and discuss structure-activity relationships on "first-in-class" new therapeutic compounds on chemical biology, structural biology or bioorganic/bioinorganic chemistry that significantly advances knowledge of a biological mechanism on novel methodological advances that are chemistry-based and which significantly impact on medicine or biology

Above all the presentation of a rational, hypothesis-driven basis for the work is of particular importance, whether its exact field.

The journal wishes to encourage rapid communications of important new data, especially on novel potential drugs. Full analytical data is therefore not required on all compounds described in the text, but it is now required on lead compounds. Authors are welcome to provide such data on all reported compounds, should they so wish: this should be placed in a Supplementary Data section and made available to reviewers.

The journal will no longer accept routine studies on series of compounds that are straightforward extensions of existing knowledge. Phytochemical and purely computational studies are generally more appropriate for specialized journals.

BMCL is flexible and will consider Communications with a range of lengths, up to a maximum length of normally no more than 10 printed pages. Longer manuscripts or full papers may be more suited to the companion journal Bioorganic and Medicinal Chemistry.

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

Email addresses for all authors should be supplied. Submission of a manuscript to BMCL is taken to mean that all authors are aware of, and agree to the submission.

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
• Include full synthetic and analytical data for lead compound(s)
• Include accession numbers for deposited crystal structures

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. These suggestions may be used by the editors, at their discretion. Please do not name colleagues in your institution, or with whom you have a current or recent professional link.

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.

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

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

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

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

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

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

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

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

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

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

**Open access**

This journal offers authors a choice in publishing their research:

**Subscription**

- Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
- No open access publication fee payable by authors.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

**Gold open access**

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

**Creative Commons Attribution (CC BY)**

Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

**Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)**

For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is **USD 2500**, excluding taxes. Learn more about Elsevier's pricing policy: [https://www.elsevier.com/openaccesspricing](https://www.elsevier.com/openaccesspricing).

**Green open access**

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

This journal has an embargo period of 24 months.

**Elsevier Researcher Academy**

Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.
**Language (usage and editing services)**

Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop.

**Submission**

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

During the submission process, authors of BMCL communications can indicate a preferred handling editor for their manuscript. Due consideration will be made to this request, although a manuscript may be assigned to another editor.

Professor Stephen Neidle, UCL School of Pharmacy, University College London, UK (Editor-in-Chief)

Professor Peng Chen, Department of Chemical Biology, Peking University, Beijing, China

Professor Matthew Disney, The Scripps Research Institute, Department of Chemistry, Jupiter, Florida, USA

Professor Hiroyuki Kagechika, Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University, Tokyo, Japan

Dr. D. Srinivasa Reddy, CSIR-National Chemical Laboratory, Pune, India

Professor H. Liu, Shanghai Institute of Materia Medica (SIMM), Chinese Academy of Sciences (CAS), Shanghai, China

**BMCL Digests** are invited reviews detailing the current status and future directions of areas of high current interest and significance that focus on developments in a field in the past few years. As REVIEWS they are NOT the appropriate article type to report new experimental results/findings. The main text should be, preferably, no more than 4500 words and there should be approximately 70 references. They should be submitted via our submission system by selecting the article type "Invited Digest".

Invited Digests will be handled by Dr Peter R. Bernstein, BMCL Digest Editor, PharmaB LLC, Philadelphia, Pennsylvania, USA.

**Submission address**

Please submit your article via [http://ees.elsevier.com/bmcl](http://ees.elsevier.com/bmcl)

**PREPARATION**

**NEW SUBMISSIONS**

Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process.

As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or layout that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

**References**

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article...
number or pagination must be present. Use of DOI is highly encouraged. The reference style used by
the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing
data will be highlighted at proof stage for the author to correct.

**Formatting requirements**
There are no strict formatting requirements but all manuscripts must contain the essential elements
(but no headings) needed to convey your manuscript, for example Abstract, Keywords, Introduction,
Materials and Methods, Results, Conclusions, Artwork and Tables with Captions.
If your article includes any Videos and/or other Supplementary material, this should be included in
your initial submission for peer review purposes.
Divide the article into clearly defined sections.

**Figures and tables embedded in text**
Please ensure the figures and the tables included in the single file are placed next to the relevant text
in the manuscript, rather than at the bottom or the top of the file. The corresponding caption should
be placed directly below the figure or table.

**Peer Review**
This journal operates a single blind review process. All contributions will be initially assessed by an
Editor for suitability for the journal, on the basis of the criteria set out in the Instructions to Authors.
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.

**REVISED SUBMISSIONS**

**Templates**
Templates are provided to allow authors to view their paper in a style close to the final printed
form. Their use is optional. All manuscripts will be fully typeset from the author's electronic files. It
should be noted that due to defined typesetting standards and the complex requirements of electronic
publishing, the publisher will not always be able to exactly match the layout the author has submitted.
In particular, in the finished journal article, figures and tables are usually placed at the top or bottom
of pages. The template is only intended to be used in assisting with the preparation and submission
of manuscripts.

It should be noted that use of the journal templates is not a requirement and their adoption will neither
speed nor delay publication. Elsevier can handle most major word processing packages and in general
most formatting applied by authors for style and layout is replaced when the article is being typeset.

These templates contain a large number of macros. To ensure successful PDF conversion during online
submission, it is important that the author save a new document based on the template, rather than
saving the template itself. To use the template, the author should save the final document as a Word
file with a '.doc' extension (rather than the '.dot' extension).

The templates can be found at [https://www.elsevier.com/bmc-templates](https://www.elsevier.com/bmc-templates).

**Article structure**

**Subdivision**
Text in normal BMCL manuscripts should either not be subdivided or done so in the simplest possible
way consistent with clarity. Headings such as 'Introduction' and 'Results and discussion' should not
be used, as the text within these sections should be self-explanatory. BMCL journal style stipulates
that only the 'Acknowledgments' and 'References and Notes' headings be used. However the authors
of BMCL Digests are encouraged to use appropriate headings, in order to enhance the readability
of their articles.

**Material and Methods**
Please provide sufficient detail to allow the work to be reproduced. Methods already published should
be indicated by a reference: only relevant modifications should be described.
Details of non-routine chemical and biological assays should be given in the Supplementary Data section. Appropriate details of routine assays should be provided either in a Figure legend or in the Supplementary Data section if they are more complex. The measurement of sufficient replicates to enable statistical significance to be assessed, is strongly encouraged: details of statistical tests used should be given. Details of cell lines used should be provided, including their source.

It is now mandatory to provide synthetic details and full analytical data for lead compounds(s) (NMR assignments, high-resolution mass spectra data, together with elemental analysis or HPLC data to demonstrate purity). In general compounds used in biological assays are expected to be at least 95% pure. Analytical data can be inserted in the Supplementary Data section.

Theory/calculations
Theoretical and computational studies should complement the experimental section. Extensive theoretical analysis is more appropriate to a specialized journal. In silico docking studies are increasingly being used to extend experimental structural data or to screen in silico libraries. Experimental validations of results from such studies are expected to be reported as part of the manuscript. Outline of the methods used in an in silico study should be provided, possibly in the References and Notes section, or in greater detail, in the Supplementary Data section. QSAR studies should be part of a wider body of work: such studies, by themselves, are more suited to specialized journals.

Results
Results should be clear and concise.

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

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

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

Essential title page information
• **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.

• **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.

• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**

• **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

**Highlights**
Highlights are a short collection of bullet points that convey the core findings of the article. Highlights are optional and 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). You can view example Highlights on our information site.
Abstract
A concise and factual abstract is required, which should normally be no more than 8-10 lines long. 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
A graphical abstract is mandatory for this journal. It should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership online. Authors must provide images that clearly represent the work described in the article. 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 also in accordance with all technical requirements.

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.

X-ray crystallographic data
All crystallographic data must be deposited with the appropriate database and an accession number must be given in the manuscript in order for final acceptance of a manuscript. Small-molecule crystal structures are to be deposited with the Cambridge Crystallographic Data Centre (http://www.ccdc.cam.ac.uk) and macromolecular structures with the Protein Data Bank (http://www.rcsb.org). Full details on deposition procedures are available directly from these data bases.

Characterization of new compounds
All Lead compounds should be fully characterized with relevant spectroscopic data. Microanalyses should be included whenever possible. Under appropriate circumstances, high-resolution mass spectra may serve in lieu of microanalysis, if accompanied by suitable NMR criteria for sample homogeneity.

DNA sequences and GenBank Accession numbers
Many Elsevier journals cite "gene accession numbers" in their running text and footnotes. Gene accession numbers refer to genes or DNA sequences about which further information can be found in the databases at the National Center for Biotechnical Information (NCBI) at the National Library of Medicine. Elsevier authors wishing to enable other scientists to use the accession numbers cited in their papers via links to these sources, should type this information in the following manner: For each and every accession number cited in an article, authors should type the accession number in bold, underlined text. Letters in the accession number should always be capitalised. (See Example below). This combination of letters and format will enable Elsevier's typesetters to recognise the relevant texts as accession numbers and add the required link to GenBank's sequences. Example: "(GenBank accession nos. AI631510, AI631511, AI632198, and BF223228), a B-cell tumor from a chronic lymphatic leukemia (GenBank accession no. BE675048), and a T-cell lymphoma (GenBank accession no. AA361117)". Authors are encouraged to check accession numbers used very carefully. An error in a letter or number can result in a dead link. In the final version of the printed article, the accession number text will not appear bold or underlined. In the final version of the electronic copy, the accession number text will be linked to the appropriate source in the NCBI databases enabling readers to go directly to that source from 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.

Footnotes
Footnotes should be used sparingly. Number them consecutively throughout the article. 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.

Electronic Artwork
General points
- Make sure you use uniform lettering and sizing of your original artwork.
- Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Indicate per figure if it is a single, 1.5 or 2-column fitting image.
- For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
- Please note that individual figure files larger than 10 MB must be provided in separate source files. All images, for example of polyacrylamide gels, must not be manipulated in any way, but must represent the original data as produced.

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
Regardless of the application used, 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 the font or save the text as 'graphics'.

TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.

TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi.

TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
- Supply files that are too low in resolution.
- Submit graphics that are disproportionately large for the content.

Electronic artwork
General points
- Make sure you use uniform lettering and sizing of your original artwork.
- Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Indicate per figure if it is a single, 1.5 or 2-column fitting image.
- For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
- Please note that individual figure files larger than 10 MB must be provided in separate source files.

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
Regardless of the application used, 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 the font or save the text as 'graphics'.
TIFF (or JPEG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
- Supply files that are too low in resolution.
- Submit graphics that are disproportionately large for the content.

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

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

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

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

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

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

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

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. 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/bioorganic-and-medicinal-chemistry-letters

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference formatting

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following examples:

Reference style

Text: Indicate references by (consecutive) superscript arabic numerals in the order in which they appear in the text. The numerals are to be used outside periods and commas, inside colons and semicolons. For further detail and examples you are referred to the AMA Manual of Style, A Guide for Authors and Editors, Tenth Edition, ISBN 0-978-0-19-517633-9.

List: Number the references in the list in the order in which they appear in the text.

Examples:

Journal abbreviations source

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

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 500 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.

**MethodsX**

You have the option of converting relevant protocols and methods into one or multiple MethodsX articles, a new kind of article that describes the details of customized research methods. Many researchers spend a significant amount of time on developing methods to fit their specific needs or setting, but often without getting credit for this part of their work. MethodsX, an open access journal, now publishes this information in order to make it searchable, peer reviewed, citable and reproducible. Authors are encouraged to submit their MethodsX article as an additional item directly alongside the revised version of their manuscript. If your research article is accepted, your methods article will automatically be transferred over to MethodsX where it will be editorially reviewed. Please note an open access fee is payable for publication in MethodsX. Full details can be found on the MethodsX website. Please use this template to prepare your MethodsX article.
Data statement
To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

AFTER ACCEPTANCE

Online proof correction
Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.
If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.
We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

Offprints
The corresponding author will, at no cost, receive a customized Share Link 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 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