DESCRIPTION

*Biochemistry and Biophysics Reports (BB Reports)* publishes original research in all aspects of Biochemistry, Biophysics and related areas like Molecular and Cell Biology.

*BB Reports* welcomes *solid though more preliminary, descriptive and small scale results* if they have the potential to stimulate and/or contribute to future research, leading to new insights or hypothesis. Primary criteria for acceptance is that the work is *original, scientifically and technically sound* and provides valuable knowledge to life sciences research.

We strongly believe all results deserve to be published and documented for the advancement of science. *BB Reports* specifically appreciates receiving reports on: *Negative results Replication studies Reanalysis of previous datasets*

**Reasons to submit your next article to BB Reports:**

- **Accessibility** - Open access provides immediate and free online access to articles by anyone, anywhere in the world. No subscription needed. **Quality** - Our renowned *international board* of subject-specific Editors, guarantee a rigorous, fair and efficient peer review process. **Speed** - Articles are published online, quickly after acceptance. Articles are published constantly so there are no print delays or long waits for the next issue to be published. **Discoverability** - BB Reports is indexed in Scopus, PubMed Central (PMC) and the Directory of Open Access Journals (DOAJ). **No Restrictions** - Open access articles are online only so there are no restrictions on article length, and no additional page or color charges like many print/subscription journals. Similarly, as there are no printing costs, the environmental impact is lower. **Readership** - No subscriptions and no paywalls means more people can read and access an open access article, increasing author readership and usage. **Author Impact** - Creative commons licenses allow authors to retain copyright to their work while permitting others to share and reuse their research, increasing author impact and citations. **Advancing Science** - by providing access to vital research through open access, researchers across the world, including those in developing countries, can help make breakthrough discoveries which may benefit society and humanity. Option of *co-submitting a data article to Data-in-Brief*. View our *Guide for Authors* for more information, or contact us via: BBREP[at]elsevier.com.
ABSTRACTING AND INDEXING

PubMed
Emerging Sources Citation Index (ESCI)
Scopus
Embase
Directory of Open Access Journals (DOAJ)

EDITORIAL BOARD

Editor-in-Chief
Hans van Leeuwen, Erasmus Medical Center, Rotterdam, Netherlands
Bone, hormones, growth factors, mesenchymal stem cells, osteoblast, extracellular matrix, exosomes

Executive Editors
Sassan Hafizi, University of Portsmouth, Portsmouth, United Kingdom
Growth factors, TAM receptors, vitamin K-dependent proteins, Tensins, neuroinflammation

Martin Oudega, Shirley Ryan AbilityLab, Chicago, Illinois, United States of America
Spinal cord injury, cell transplantation, biomaterials, axon regeneration, nervous tissue sparing

Cornelis Tensen, Leiden University Medical Centre Department of Dermatology, Leiden, Netherlands
Skin cancer, Hematological malignancies, Signal transduction, Genomics

Martin Oudega, Shirley Ryan AbilityLab, Chicago, Illinois, United States of America
Growth factors, TAM receptors, vitamin K-dependent proteins, Tensins, neuroinflammation

Vladimir Uversky, University of South Florida Department of Molecular Medicine, Tampa, Florida, United States
Protein physics, protein folding, protein misfolding, protein aggregation, conformational diseases, protein functions, intrinsically disordered proteins

Managing Editor
Cristina Monterrubio-Martin
Plant biology, Genetics, Molecular biology, Bioinformatics, QTL analysis, Breeding, Genomic selection, GWAS, Quantitative genetics, Abiotic stress and phenotyping

Associate Editors
Raghvendra Bohara, CÚRAM NUI, Galway, Ireland and D.Y. Patil Education Society, Galway, Ireland
Nanomaterials, Nanomedicine, Cancer, Glycobiology, Drug delivery, Water, bateria, Cancer nanomedicine, Hematological drug deliveries, magnetic nanoparticles, hydrogels

Fadi Bou-Abdallah, SUNY Potsdam Department of Chemistry, Potsdam, New York, United States of America
Bio-Inorganic Chemistry and Physical Chemistry of Biological Processes (Spectroscopy, metallo-biochemistry, radicals in proteins, transition metal chemistry, biomineralization, iron proteins and complexes, isothermal titration calorimetry, thermodynamics and rapid kinetics measurements of ligand-protein and protein-protein interactions), capillary electrophoresis, pollutants and pharmaceuticals in water and their impact on human health and the environment.

Leonid Breydo, University of Florida, Exton, Pennsylvania, United States
Biophysics

Gang Chen, The Chinese University of Hong Kong - Shenzhen, Shenzhen, China
RNA editing, microRNA, rRNA, viral RNA, RNA structures, RNA triplex, RNA folding, RNA targeting

Didier Devaurs, The University of Edinburgh, Edinburgh, United Kingdom
Computational structural biology, structural bioinformatics, molecular modelling, quantitative biomedical research

Lemeng Dong, University of Amsterdam, Amsterdam, Netherlands
Plant metabolism, terpenoid biosynthesis, plant-microbe interaction, plant-nematode interaction, nutrient availability

Robson Faria, Institute Oswaldo Cruz, Rio de Janeiro, Brazil
Biophysic, pharmacology, cell biology, physiology, parasitology

Vito Foderà, University of Copenhagen Department of Pharmacy, København, Denmark
Protein Biophysics, Protein-Protein interactions, Protein-membrane interactions, Protein Aggregation, Amyloid Fibris and Superstructures, UV-Vis Spectroscopy, Small Angle X-ray Scattering, Transmission Electron Microscopy, Theoretical Modeling of Self-Assembly in Biological systems

SAEID GHAVAMI, University of Manitoba Max Rady College of Medicine, Winnipeg, Manitoba, Canada
Autophagy, Unfolded Protein Response, Fibrotic Disease, Apoptosis, Lung Cancer, Idiopathic Pulmonary Fibrosis, Rhabdomyosarcoma, Brian tumors, Metastasis, Chemo-resistance

Shreya Ghosh, Memorial Sloan Kettering Cancer Center, New York, New York, United States
Molecular Biology, Biochemistry, Nucleic Acid Metabolism, Microbiology
Luciana Hannibal, Medical Center-University of Freiburg, Freiburg, Germany
Tetrapyrrole metabolism, cobalamin-dependent enzymes, metabolism, disorders of vitamins and cofactors, Biochemistry, Mass spectrometry metabolomics
Yukinari Kato, Tohoku University School of Medicine, Miyagi, Japan
cancer, monoclonal antibody
Maria Luisa Mangoni, University of Rome La Sapienza Department of Biochemical Sciences Alessandro Rossi Fanelli, Roma, Italy
Antimicrobial peptides, Biological assays, Immunomodulatory activities, Wound healing, Antibiotic resistance, Frog skin peptides, Peptide-membrane interaction
Maria Claudia Montefusco, Elsevier Inc, Cambridge, MA, USA
Cancer, Genetics, Haematology, Microbial genetics, Microbiology
SAMIR PATRA, National Institute of Technology Rourkela Department of Life Science, Rourkela, India
Epigenetic mechanisms and gene expression, DNA demethylase enzyme, Cell signalling and epigenetic modulations, Histone 3 modifications and cancer, Gene regulation by miRNA in cancer, Membrane lipid raft signaling and epigenetic cross talk
Teresita Padilla-Benavides, Wesleyan University, Middletown, Connecticut, United States of America
Amyloidogenic Peptides, Peptide-Membrane Interactions, Membrane Fusion, Computational Modeling, Molecular Dynamics, Nanomedicine, Drug Delivery Systems
Jose Renato Pinto, Florida State University College of Medicine, Tallahassee, Florida, United States of America
Striated muscle regulation, Troponin, Muscle biophysics, Cross-bridge kinetics, Cardiomyopathies
Alaa Refaat, St. Jude Children's Research Hospital, Memphis, Tennessee, United States of America
Cancer, Apoptosis, Signaling, Molecular biology, Cell death
Mati Ur Rehman, The Aga Khan University Department of Biological and Biomedical Sciences, Karachi, Pakistan
Cancer, Apoptosis/cell death, Nanomedicine, oxidative stress, Cold atmospheric plasma, ionizing radiation/hyperthermia, oriental medicine/natural products
Katja Rybakova, Cellgebra, Dublin, Ireland
Systems biology, Kinetic modeling of biological systems, Ordinary differential equations (ODE) modeling, Stochastic modeling, RNA transcription, Chromatin, Signaling networks, Mathematical modeling
Bal Singh, Institute of Advanced Sciences, Dartmouth, Massachusetts, United States of America
Protein Biochemistry, Structure function of biomolecules, Biospectroscopy, Toxins, Herbal chemistry, Sensor
Luis Sobrevia, Pontificial Catholic University of Chile, Santiago de Chile, Chile
Sobrevia's research focus is altered foetoplacental vascular function in diseases of pregnancy, including gestational diabesity, gestational diabetes mellitus, preeclampsia and maternal obesity
Jesus Tejero, University of Pittsburgh Vascular Medicine Institute, Pittsburgh, Pennsylvania, United States of America
Protein structure and function, nitric oxide, nitrite, heme, globins, biophysics, carbon monoxide
Suman Thakur, Centre for Cellular and Molecular Biology CSIR, Hyderabad, India
Proteomics, Drug Discovery, Mode of action, Cancer, Diabetes
Murali Yallapu, University of Texas Rio Grande Valley Department of Immunology and Microbiology, Edinburg, Texas, United States of America
Nanomedicine, Drug delivery, Cancer biology, Materials science, Nanotechnology
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
Types of papers
Biochemistry and Biophysics Reports publishes original research in all aspects of Biochemistry, Biophysics and related areas like Molecular and Cell Biology. The primary criteria for acceptance are that the work is original, scientifically and technically sound and provides valuable knowledge to life sciences research.

Short communications report on timely results in a concise manner and require rapid dissemination. They should be no more than 4,600 words long, and include no more than four figures.

Reviews and Mini-reviews are considered by the journal. They should be thorough, sufficiently critical and accommodate different points of view. They should not be exhaustive compilations of previously published data, nor should they merely cover contributions from the author's own research. Authors are encouraged to identify and discuss how the field may be impacted or develop in the future, including insights that may be of significance to the scientific community.

Methods papers will be considered only if they are of general importance with considerable original and useful information. Minor improvements to existing methods are not acceptable.

Letters to the Editor that are pertinent to material published in Biochemistry and Biophysics Reports or that discuss problems of general interest are selected for publication. The author of a paper in question is usually given an opportunity to reply. We do not consider hypothesis papers unless they provide sufficient observational support.

Speed of Peer Review
All possible effort will be made by the Editors in order to obtain referees’ comments rapidly. In principle, the authors will be informed of a decision within 6 weeks.

BEFORE YOU BEGIN
Ethics in publishing
Please see our information on Ethics in publishing.

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

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

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Research Council’s Guide for the Care and Use of Laboratory Animals and the authors should clearly indicate in the manuscript that such guidelines have been followed. The sex of animals must be indicated, and where appropriate, the influence (or association) of sex on the results of the study.
Declaration of interest
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors should complete the declaration of interest statement using https://www.elsevier.com/declaration-of-competing-interests and upload to the submission system at the Attach/Upload Files step. Note: Please do not convert the .docx template to another file type. Author signatures are not required. If there are no interests to declare, please choose: ‘Declarations of interest: none’ in the template. 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 compliance, your article may be checked by Crossref Similarity Check and other originality or duplicate checking software.

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

Preprint posting on SSRN
In support of Open Science, this journal offers its authors a free preprint posting service. Preprints provide early registration and dissemination of your research, which facilitates early citations and collaboration.

During submission to Editorial Manager, you can choose to release your manuscript publicly as a preprint on the preprint server SSRN once it enters peer-review with the journal. Your choice will have no effect on the editorial process or outcome with the journal. Please note that the corresponding author is expected to seek approval from all co-authors before agreeing to release the manuscript publicly on SSRN.

You will be notified via email when your preprint is posted online and a Digital Object Identifier (DOI) is assigned. Your preprint will remain globally available free to read whether the journal accepts or rejects your manuscript.

For more information about posting to SSRN, please consult the SSRN Terms of Use and FAQs.

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

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.

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

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

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

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

**Copyright**
Upon acceptance of an article, authors will be asked to complete a 'License Agreement' (see more information on this). Permitted third party reuse of open access articles is determined by the author's choice of user license.

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

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

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

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

**Elsevier Researcher Academy**
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.
Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's Author Services.

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

Submit your article

Referees
Please submit the names, addresses, and e-mail addresses of a minimum of 4 potential referees, as well as a brief description of their expertise relevant to your manuscript. Suggested reviewers should be individuals qualified to evaluate the work you have submitted. Editorial Board members who do not have relevant expertise on the topic of your article should not be suggested. Please note that the reviewers suggested may not be current, recent or extensive collaborators of yours, and cannot have been involved in the preparation of the manuscript.

Please note that the editor retains the sole right to decide whether or not the suggested reviewers are used. Failure to provide appropriate reviewer suggestions as noted above may result in your manuscript being returned to you without review.

Authors may request exclusion of certain referees if conflicts of interest are anticipated. However, no more than 3 such names should be given. Entire groups, institutions or countries cannot be specified for exclusion.

PREPARATION

Queries
For questions about the editorial process (including the status of manuscripts under review) or for technical support on submissions, please visit our Support Center.

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 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 anonymized review process. Short communications undergo an initial internal review and are then typically sent to at least one external expert reviewer to assess the scientific quality of the paper. All other contributions are typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Executive Editor is responsible for the final decision regarding acceptance or rejection of articles. The Executive Editor's decision is final. Editors are not involved in decisions about papers which they have written themselves or have been written by family members or colleagues or which relate to products or services in which the editor has an interest. Any such submission is subject to all of the journal's usual procedures, with peer review handled independently of the relevant editor and their research groups. More information on types of peer.

REVISED SUBMISSIONS
Use of word processing software
Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure
Subdivision - unnumbered sections
Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text'.

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.

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 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.

Western blots images

*Biochemistry and Biophysics Reports* requires submission of the whole uncropped images of the original western blots in triplicate that contributed to the quantitative analysis, from which figures have been derived. Please submit as Supplementary Figure(s). **Please note that this is mandatory when western blots are shown. Your article will not be sent to review until the uncropped images are provided.** Please see Example of original western blot for three repeats.

**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, it is recommended to include the following sentence:

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

Units
Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.

Enzymology data
This journal follows the recommendations of the STRENDA (Standards for Reporting Enzymology Data) Commission of the Beilstein-Institut for the reporting of kinetic and equilibrium binding data. Detailed guidelines can be found at (http://www.strenda.org/documents.html) or in this PDF file.

All reports of kinetic and binding data must include a description of the identity of the catalytic or binding entity (enzyme, protein, nucleic acid or other molecule). This information should include the origin or source of the molecule, its purity, composition, and other characteristics such as post-translational modifications, mutations, and any modifications made to facilitate expression or purification. The assay methods and exact experimental conditions of the assay must be fully described if it is a new assay or provided as a reference to previously published work, with or without modifications. The temperature, pH and pressure (if other than atmospheric) of the assay must always be included, even if previously published. In instances where catalytic activity or binding cannot be detected, an estimate of the limit of detection based on the sensitivity and error analysis of the assay should be provided. Ambiguous terms such as "not detectable" should be avoided. A description of the software used for data analysis should be included along with calculated errors for all parameters.

First-order and second-order rate constants: see PDF file for full instructions.

Novel lipid structures
Biochemistry and Biophysics Reports recommends that authors of manuscripts deposit all novel lipid molecules for registration in the LIPID MAPS structure database prior to publication. This will be extremely beneficial in terms of
(a) Maintaining and expanding a comprehensive lipid database covering a wide variety of sources (e.g., mammals, plants, fungi, bacteria, marine organisms),
(b) Accurate classification of new lipid structures,
(c) Application of consistent nomenclature standards with regard to systematic names and abbreviations, and
(d) Consistent and unambiguous structural representation. The preferred method for depositing lipid structures is a Web-based registration system on the LIPID MAPS Web site that will enable authors to enter lipid structures and accompanying names, synonyms, references, and classification information. During the submission process, structures are validated for uniqueness using a search on the current database. The submitted structures are then stored in a private, temporary database where they are reviewed by LIPID MAPS bioinformatics staff prior to being classified, checked for correct nomenclature, and registered in the public LIPID MAPS structure database. Questions regarding the submission of structures should be directed to webmaster@lipidmaps.org
Math formulae
Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

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

Artwork
Image manipulation
Whilst it is accepted that authors sometimes need to manipulate images for clarity, manipulation for purposes of deception or fraud will be seen as scientific ethical abuse and will be dealt with accordingly. For graphical images, this journal is applying the following policy: no specific feature within an image may be enhanced, obscured, moved, removed, or introduced. Adjustments of brightness, contrast, or color balance are acceptable if and as long as they do not obscure or eliminate any information present in the original. Nonlinear adjustments (e.g. changes to gamma settings) must be disclosed in the figure legend.

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

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

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

Color artwork
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color on the Web (e.g., ScienceDirect and other sites). For further information on the preparation of electronic artwork, please see https://www.elsevier.com/artworkinstructions.
Illustration services
Elsevier's Author Services offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

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

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

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

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

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

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

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

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


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

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

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.

3D molecular models
You can enrich your online articles by providing 3D molecular models (optional) in PDB, PSE or MOL/MOL2 format, which will be visualized using the interactive viewer embedded within the article. Using the viewer, it will be possible to zoom into the model, rotate and pan the model, and change display settings. Submitted models will also be available for downloading from your online article on ScienceDirect. Each molecular model will have to be uploaded to the online submission system separately, via the '3D molecular models' submission category. For more information see: https://www.elsevier.com/3DMolecularModels.
**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).

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

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

During submission, you will be alerted to the opportunity to prepare and submit a Research Elements article.

More information can be found on the Research Elements page.

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

**Submission checklist**
The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

**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
- Telephone
All necessary files have been uploaded, and contain:
- Keywords
- All figure captions
• All tables (including title, description, footnotes)
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 Web)

For any further information please visit our customer support site at https://service.elsevier.com.

AFTER ACCEPTANCE

Availability of accepted article
This journal makes articles available online as soon as possible after acceptance. This concerns the Journal Pre-proofs (both in HTML and PDF format), which have undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but are not yet the definitive versions of record. A Digital Object Identifier (DOI) is allocated, thereby making it fully citable and searchable by title, author name(s) and the full text. The article's PDF also carries a disclaimer stating that it is an unedited article. Subsequent production stages will simply replace this version.

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 be notified and receive a link to the published version of the open access article on ScienceDirect. This link is in the form of an article DOI link which can be shared via email and social networks. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's Author Services.

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