

Biomeditsinskaya Khimiya

Guide for authors

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1. GENERAL INFORMATION

1.1. The journal publishes papers in all areas of biomedical chemistry and related disciplines, including genomics, transcriptomics, proteomics, metabolomics, bioinformatics, enzymology, molecular biology, biochemical pharmacology, molecular and cellular medicine, clinical biochemistry, etc.

1.2. Completed original works written in English are accepted for publication, provided that their topics correspond to the sections of the journal described below and are recommended by one of the members of the editorial board.

1.3. Experimental and clinical papers should be limited by 30,000 characters with spaces, including a list of references, and contain no more than 10 illustrations or tables. Literature reviews should be limited by 70,000 characters. The number illustration materials should be sufficient for adequate presentation of information. Short communications are limited by 15000 characters, including 10-12 references, 2-3 figures or tables.

1.4. Authors can provide Supplementary materials required for better understanding of the data presented in the article. These materials are deposited on the journal's website. The editors reserve the right to refuse to publish part or all Supplementary materials, and to offer the author to provide Supplementary materials or to transfer part of the materials from the text of the article to additional data.

1.5. The editors reserve the right to shorten the manuscripts, regardless of their size, keeping the actual part. Submission of a manuscript for publication in the journal Biomedical Chemistry implies the agreement of the authors with the rules and instruction.

1.6. Manuscripts containing plagiarism will be removed from the editorial bag at any stage of manuscript processing. Special attention should be paid to avoid self-plagiarism. In some cases authors may include previously published data in the submitted manuscript only with indication (citation) of the original paper, where such materials have already published.

2. EDITORIAL AND SECTION POLICIES

2.1. In the sections "EXPERIMENTAL RESEARCH" and "CLINICAL and DIAGNOSTIC RESEARCH" the journal publishes papers containing new results of experimental and clinical laboratory studies. Clinical studies performed using biological materials obtained from patients and/or healthy volunteers must contain information about the informed consent of patients to participate in the study and the use of their bioassays and a corresponding link to the approval of the study by the relevant ethical committee(s).

2.2. The journal accepts REVIEWS both ordered by the editors/members of the editorial board and also proposed by the authors. In the latter case, the authors should submit first the title of the review and a detailed summary (300-600 words) by e-mail (biomed@ibmc.msk.ru) for a pilot approval of the

proposed review and its relevance for this journal. The editorial board reserves the right to reject the submitted review provided that members of the editorial board decide that the journal is not interested in publishing the review on the proposed topic.

2.3. Priority works are published in the form of **SHORT COMMUNICATIONS** 2-4 months after being accepted for publication. **SHORT COMMUNICATIONS** refer to works containing high priority new data. Works describing phenomenological results are considered only in the case of a description of a reliably confirmed new phenomenon.

2.4. In the "MISCELLANEOUS" section, messages from the Editors are published, as well as letters expressing the author's personal point of view on a scientific event or publication on the subject of the journal, letters to the Editors, chronicles of congresses, congresses and conferences (no later than 2 months after the event). The decision to publish the submitted materials will be made by the editors without sending to referees.

3. SUBMISSION OF MANUSCRIPTS

3.1. Articles are submitted in the electronic form exclusively through the website of the electronic editorial office of the journal (<http://pbmc2.ibmc.pro/ojs>). The e-mail submission (biomed@ibmc.msk.ru) is accepted only for abstracts of proposed reviews, materials for publication in the "MISCELLANEOUS" section or articles ordered by the editors.

3.2. An article (title, list of authors with affiliations, text, summaries in Russian and English, bibliography, captions to figures and tables) should be included in one file, while figures and tables should be submitted in separate files. Only Latin letters and numbers and the underline "_" should be used in file names. The file name is formed from a prefix, which is used as the surname and initials of the first author and the year of submission of the manuscript. For example, "IvanovAA2014". This is followed by the symbol "_" and a part of the title determined by the nature of the document ("IvanovAA2014_text" - a file with the text of the article, "IvanovAA2014_figure1" - figure 1, "IvanovAA2014_table2" - table 2, "IvanovAA2014_AnswerToReviewer" - responses to the comments of reviewers). All article materials must be uploaded into the system as a single archive file (only files archived using the ZIP archiver are accepted). Files containing additional materials, letters to the editor etc. should be uploaded as additional files in the appropriate section with brief description.

3.3. For the convenience of the reviewer, it is recommended to submit all materials of the article in the form of a single file (in the formats "MS WORD", "RTF" or "PDF") with illustrations of lower quality than required by the rules, and tables inserted in the body of the article text. The presence of such a file does not cancel the need to provide all other files in the archive.

3.4. The article must be accompanied by a scanned version of a letter signed by all authors, which states that the submitted has not has not been previously published and has not been submitted to elsewhere. Articles that do not meet all the considered criteria will be sent for revision and this which will lead to a delay in article processing and publication.

4. PREPARATION OF THE MANUSCRIPT

4.1. STRUCTURE OF THE MANUSCRIPT

4.1.1. The following information should be placed on the first page before the text of the manuscript:

- a) the title of the article (should be typed using a regular font with upper and lower case letters);
- b) the initials and surnames of the authors; corresponding author should be marked with an asterisk (*)
- c) detailed names of scientific institutions without specifying departmental affiliation or form of ownership (FGBUN, FGBU, LLC, etc.). For the institution in which the corresponding author works, the full postal address and e-mail should be indicated. For other institutions, this requirement is desirable, but not mandatory; it is permissible to indicate only the city and the country (if the country is not Russia). No more than two places of employment can be indicated for each author;
- d) keywords (no more than 6);
- e) running title of the article (no more than 60 characters, including spaces);
- f) summary (not less than 1000 and not more than 3000 characters with spaces without paragraphs and subheadings).

4.1.2. The text of the manuscript should be subdivided into sections.

4.1.2.1. For manuscripts submitted to the sections "EXPERIMENTAL STUDIES", "CLINICAL DIAGNOSTIC STUDIES" and "SHORT Communications ", the general structure of the material is as follows:

- INTRODUCTION
- METHODS
- RESULTS AND DISCUSSION (THIS SECTION CAN BE SUBDIVIDED INTO TWO SECTIONS: RESULTS, DISCUSSION)
- CONCLUSIONS
- COMPLIANCE WITH ETHICAL STANDARDS
- ACKNOWLEDGMENTS
- FUNDING
- CONFLICT OF INTERESTS
- REFERENCES

4.1.2.2. The author's text of the manuscript submitted to the "REVIEWS" section should be divided into sections and subsections with headings and subheadings. Headings should be in capital letters. Subheadings - as in sentences (without a period at the end) in italics.

4.1.3. Further, the metadata (title, list of authors and their affiliations, summaries, keywords) and the FUNDING section in Russian and captions to tables and figures should be placed. If neither of authors do not speak Russian, the editors can translate metadata from English into Russian.

4.2. THE MANUSCRIPT SECTIONS

4.2.1. The Materials and Methods section should contain detailed description of the methods used (with the exception of the generally accepted ones): conditions of electrophoresis, chromatography, centrifugation (the speed should be expressed in g or in revolutions per minute (rpm), provided that the type of centrifuge and rotor is indicated), etc. If the technique has been described earlier (a reference to the corresponding publication is indicated), it is recommended to provide a brief description containing basic steps needed to understand the experimental part of the work.

4.2.2. The COMPLIANCE WITH ETHICAL STANDARDS section is required for all articles. For studies with animals, the statement about applicability of international, national, and/or institutional guidelines for the care and use of animals should be included. Clinical studies performed on biological material obtained from patients and/or healthy volunteers must contain information about the informed consent of patients to participate in the study and to use their biological material. It is also necessary to indicate that the study was approved by the relevant ethics committee, indicating the number and date of the corresponding document. If the work is not related to research, in which people or animals act as the object, this must be indicated (e.g. This article does not contain any research involving humans or using animals as experimental objects.)

4.2.3. The Funding section is obligatory and must contain information about all financial sources of the work.

4.2.4. The Section CONFLICT OF INTEREST is obligatory because any conflict of interest could directly or indirectly affect the work or make it biased. In this section, the authors declare the presence or absence of a conflict of interest in the financial or in any other area. If there is no conflict of interest, please indicate: "The authors declare no conflict of interest."

4.3. THE TEXT PREPARATION

4.3.1. The text of the article should be double-spaced and typed using Times New Roman (font size 12).

4.3.2. All formulas, physical, mathematical symbols, structures of organic compounds and mathematical equations must be typed in a computer method. In this case, a uniform marking of formulas, symbols, dashes, italics with special designations must be observed. Mixed use of Russian and Latin indices should be avoided; indices should be decrypted (in brackets or context). Mathematical formulas should be placed on a separate line and numbered. The reference in the text to the formula should be indicated in parentheses.

4.3.3. Standard symbols of amino acids, nitrogenous bases, nucleosides, nucleotides given in Latin letters do not require explanations, for example, Ala (alanine), G (guanine), dA (deoxyadenosine), AMP, ADP, ATP, NAD, NADH, NADP, NADPH. Non-standard abbreviations should be defined upon first mention and if necessary, authors can prepare a list of abbreviations.

4.3.4. In the text of the article, it is necessary to use physical units and designations adopted in the International System of Units SI, as well as the relative atomic masses of elements on the ¹²C scale. When naming the various compounds, it is necessary to use the IUPAC terminology at least at the first mention when using a trivial name.

4.3.5. Concentrations of substances in solutions should be reported in M, mM, μM, nM, etc. In the case of presenting concentrations in the form of%, it is necessary to clarify the calculation of the percentage by weight, by volume or weight /volume. For example, 1% (mass/volume) means that 100 ml of a solution contains 1 g of a substance.

4.3.6. In the calculation works, it is necessary to indicate the authors or manufacturer of the programs used.

4.3.7. The journal has adopted a sequential citation system, when, in the course of the data presentation, the ordinal number of the cited source is indicated in square brackets, corresponding to the number in the list of references.

4.4. REFERENCES

Usually, the number of references used in research manuscripts should be limited by 20-25 citations.

Examples of references are given below:

Papers in journals

Salmin V.V., Morgun A.V., Olovyannikova R.Ya., Kutyaikov V.A., Lychkovskaya E.V., Brusina E.B., Salmina A.B. (2021) Atmospheric reactive oxygen species and some aspects of the antiviral

protection of the respiratory epithelium. *Biomeditsinskaya Khimiya*, **67**(5), 383-393. DOI: 10.18097/PBMC20216705383

Checa J., Aran J.M. (2020) Reactive Oxygen Species: Drivers of Physiological and Pathological Processes. *Journal of Inflammation Research*, **13**, 1057. DOI: 10.2147/JIR.S275595

Chapters in books:

Watanabe Y., Yoshizawa A. C., Ishihama Y., Okuda S. (2021). The jPOST repository as a public data repository for shotgun proteomics. In *Shotgun Proteomics* (M. Carrera and J. Mateos eds.) Humana, New York, NY, pp. 309-322.

Books:

Britton, G. (1983) *The biochemistry of natural pigments*. Cambridge University Press. 422 p.]

Proceedings of Conferences:

Hilal A., Ploskonos M., Syatkin S., Blagonravov M., Terentyev A., Kharlitskaya E., Kaitova Z., Dobina E., Zhdanov D. (2021) Inhibition of tumor cell growth by novel synthetic polyamine analogues. The 45th FEBS Congress ‘Molecules of Life: Towards New Horizons’, 103-507. DOI: 10.1002/2211-5463.13205

Patents:

Filimonov D.A., Poroikov V.V., Glozozova T.A., Lagunin A.A. (2006) PASS program package, Russian State Patent Agency Certificate, No. 2006613275 of 15.09.2006.

Online versions of the patents:

Botura, G. C., Wilson, T. M., Hartzler, B. (2018) A method to join Nano technology carbon allotrope heaters, European Patent No. EP3331317. Retrieved from <https://www.epo.org/application?number=EP17205218>

Web-documents:

Bio-Rad. Instructions. Aurum Affi-Gel Blue Mini Kits and Columns. Retrieved November 16, 2021, from: <https://www.bio-rad.com/webroot/web/pdf/lsr/literature/10010636D.PDF>

4.5 ILLUSTRATIONS

4.5.1. Each illustration should be submitted as a separate file.

4.5.2. Illustrations must be of high quality, ready for printing; PNG, TIFF and JPG formats are accepted (JPEG format with low compression level can be used only for photographs).

4.5.3. The resolution of figures must be at least 300 dpi and no more than 600 dpi. If the resolution of the pictures is high, we recommend using the PNG format.

4.5.4. Preparing illustrations, it is necessary to use the following rules: all illustrations should be easily readable under the following conditions: the horizontal size in the printed version

can be either 7.5 cm or 15 cm, the vertical maximum size of the figure is limited to 10 cm and 21 cm, respectively. The text in figures should be clearly readable for the given dimensions.

4.5.5. All text on figures should be made using one font (preferably Times New Roman).

4.5.6. The file names must correspond to the numbers of the figures, for example: IvanovAA2014_figure13.png.

4.5.7. Authors can submit illustrations in two forms: with 256 shades of gray for the print edition and the same figure in color for publication in the electronic version. In this case, the figures should be named as IvanovAA2014_figure13bw.png and IvanovAA2014_figure13colour.png, respectively.

4.5.8. The publication of color illustrations in the printed version is possible on a paid basis at the decision of the publisher.

4.5.9. Illustrations borrowed from other publications may be published only with the permission of their copyright holders. In this case, the author of the manuscript must provide written permission from the copyright holder to publish, or refer to the appropriate open access license (for example, CC BY-SA 4.0).

4.6. TABLES

4.6.1. Each table should be formatted as a separate file.

4.6.2. Tables must be prepared in a format compatible with MS WORD and MS EXEL 2003. Font size is not less than 10. All columns in tables must have headings and be separated by vertical and horizontal lines.

4.6.3. File names must correspond to the table number, for example: IvanovAA2014_table1.xls, IvanovAA2014_table2.rtf.

4.6.4. Tables copied in full from other publications may be published only with the permission of their copyright holders. In this case, the author of the manuscript must provide written permission from the copyright holder to publish, or refer to the appropriate open access license (for example, CC BY-SA 4.0).

4.7. SUPPLEMENTARY MATERIALS

4.7.1. If it is planned to publish supplementary materials, files containing supplementary materials and their description should be provided simultaneously with submission of the manuscript.

4.7.2. Files of supplementary materials are published in the author's version. The editors are not responsible for mistakes made by the authors in additional materials.

4.7.3. The description file (example of the name IvanovAA2014_suplement.rtf) is provided in a format compatible with the MS WORD program and must contain the names of individual application

files with a short description (no more than 2-3 lines). If a more detailed description is required, it should be placed as a separate attachment in the PDF format. For example:

1. IvanovAA2014_suplement1.tiff
2. Photo of 2D electrophoresis shown in Figure 3.
3. IvanovAA2014_suplement2.pdf
4. A complete list of identified proteins obtained from the analysis of blood plasma.

4.7.4. Text and tabular information is provided in the form of PDF files, photographs, and figures in the TIFF or PNG format (JPG format is allowed if the image quality is not decisive for its use), archived files in specialized generally accepted formats (for example, PDB or SDF for molecules). You need to archive files with a ZIP archiver.

5. AUTHOR'S COPY

A proofreading will be sent to the corresponding author email address, which must be corrected and returned to the editorial office with the attached list of corrections made (in a separate word file) within 3 calendar days. Otherwise, the article will be published without author corrections.

After publication of the submitted manuscript authors are provided with a copy of the article in the form of a PDF file.