

"I APPROVE"

Member of the Management Board -
Vice-Rector for Science and
Commercialization JSC "L.N.
Gumilyov Eurasian National
University"

Zh.D. Kurmangalieva

« 24 » 02 2025

THE JOURNAL EDITORIAL POLICY
"BULLETIN OF THE L.N. GUMILYOV EURASIAN NATIONAL UNIVERSITY,
BIOSCIENCE SERIES"

1. General Provisions

1.1. The Bulletin of the L.N. Gumilyov Eurasian National University. Bioscience series (hereinafter referred to as the Journal) is a scientific peer-reviewed journal specializing in the publication of original, high-quality, carefully selected original works in the field of biological sciences.

1.2. The journal has been published since 1995 years. Registered by the Ministry of Information and Communications of the Republic of Kazakhstan. Certificate of registration No. KZ11VPY00031938 dated 02.02.2021.

1.3. The International Center for Standard Serial Numbers has assigned the journal an index: print version ISSN (Print) 2616-7034, electronic version ISSN (Online) 2663-130X.

1.4. The frequency of publication of the Journal is once every three months, 4 times a year.

1.5. Journal website <https://bulbio.enu.kz>

1.6. The founder and publisher is the Non-Profit Joint Stock Company "L.N. Gumilyov Eurasian National University", 2 Satpayev Street, Astana, Kazakhstan, 010000.

1.7. Changes and additions to the editorial policy are made by the decision of the Editorial Board.

2. The purpose and objectives of the journal

2.1. The main objective of the activities of the editorial board of the Journal is:

- publication of the results of completed original scientific research in various fields of biological sciences;

2.2. The journal, as part of the Kazakhstani scientific information system, participates in solving the following tasks through the publication of materials:

- to serve as an information platform for the qualified exchange of opinions and results of both theoretical and experimental research in various areas of biology;

- publication of materials on the most promising areas of biological science with the aim of widely involving students, master's students, doctoral students, teachers and staff of universities and research institutes of Kazakhstan in these studies;

- to ensure the wide dissemination of new knowledge and research results at the national and international level;

- to make a significant contribution to the development of higher and postgraduate education in Kazakhstan;

- to promote the integration of biological science in Kazakhstan into the global scientific space (including through inclusion in scientometric databases);

- to promote the practical implementation of the latest achievements of modern biological science.

- to promote the development of the journal as an open access scientific publication;

- to promote increased accessibility of the journal for foreign readers – publication of an extended summary of the essence of the research in English (Abstract), keywords (Keywords) and duplication of the list of references in the Latin alphabet (References).

3. Directions and periodicity of the journal

3.1. The journal publishes the results of completed original research and review articles in various fields of modern biology.

3.2. Subject areas: biochemistry, molecular biology, biotechnology, bioinformatics, virology, biophysics, bioengineering, physiology, botany, zoology, evolutionary biology, genetics, microbiology, biomedicine.

3.3. The publication is published 4 times a year.

4. Open Access Policy

The journal provides direct open access to its content based on the following principle: free open access to research results contributes to the increase of general knowledge. The official website of the journal provides all interested persons and authors with the necessary information about the scientific journal and the conditions for publishing articles (link to the article archive <https://bulbio.enu.kz>).

5. Archiving

Electronic versions of the scientific journal are provided to JSC "NCSTE", "EBSCO" for the formation of a fund and inclusion in the electronic library. The journal archives materials in Elibrary.ru.

6. Conditions for publication of articles

The editors ask authors to carefully read the rules (Editorial Policy of the journal, containing general information about the journal, the procedure for reviewing articles, recommendations for authors, publication ethics) and follow them when submitting articles to the journal.

The journal "Bulletin of the L.N. Gumilyov Eurasian National University. Bioscience series" publishes the results of completed original research, theoretical and review articles in various fields of modern biology. The journal publishes review articles on the most pressing issues of biological and biomedical sciences ordered by the editorial board (or proposed by the authors and approved by the editorial board). The authors of the review article must have their own published works on the proposed topic. The list of cited literature must include works published on this topic over the past 5-10 years.

All manuscripts submitted to the editorial board of the journal "Bulletin of the L.N. Gumilyov Eurasian National University. Bioscience series" undergo mandatory double "blind" review. Based on the reviews received, the editorial board of the journal makes a final decision.

All articles are accepted in three languages: Kazakh, Russian and English, they must not have been previously published in print and/or electronic form.

The date of receipt of the article is considered to be the date of receipt of its final version by the editors. The editors reserve the right to make editorial changes to the text that do not distort the meaning of the article.

Articles by foreign authors, as well as articles in English, make up at least 1/3 (one third) of the number of publications in each issue of the journal, or 1 (one) article by a foreign author in English without Kazakhstani co-authorship is taken into account.

Scientific articles by authors not affiliated with the publisher constitute at least 50% (fifty percent) of the number of publications in each issue of the journal.

In one issue of the journal, **the author may publish no more than one article, including co-authorship.**

Only manuscripts that have **at least 70% originality** after checking through the anti-plagiarism system are sent for further review.

When preparing articles for publication in the journal "Bulletin of the L.N. Gumilyov Eurasian National University. Bioscience series", it is necessary to strictly adhere to the structure of the scientific article and be guided by the rules of design.


Article formatting parameters: page – A4, portrait orientation, justified alignment, margins on all sides – 20 mm. Font: Times New Roman, size (font) – 14, line spacing 1, indent – 1.0 cm. Continuous line numbering. The article should not exceed 20 pages.

The decision to publish articles is made by the editorial board of the journal after reviewing, taking into account the scientific significance and relevance of the submitted materials. Articles rejected by the editorial board are not accepted or reviewed again.

Articles must be accompanied by a referral from the scientific institution where the work was carried out.

Structure of a scientific article:

The structure of a scientific article includes IMRAD (for original articles), title, abstract, keywords, introduction, materials and methods, results, discussion, conclusion, funding information (if any), and reference list.

- IRSTI
- Article type
- Article Title
- Full name of the author(s) ( ORCID)
- Place of work of the author(s), city, country, e-mail
- Annotation
- Keywords
- Introduction
- Materials and methods of research
- Results
- Discussion
- Conclusion
- Authors' contributions
- Funding information
- Conflict of interest
- Compliance with ethical standards
- References
- Information about the authors.

Each author is linked to his or her organization using an uppercase digit as shown below:

IRSTI 06.81.23

Article type: research article

Effect of heavy metals on microorganism growth

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Doctoral students are allowed to publish articles without co-authors, provided that **they provide a review of the article** prepared by their supervisor.


The works of master's and doctoral students can be published only if they **are co-authored by a doctor or candidate of sciences, as well as a PhD.**

Procedure for formatting an article

The IRSTI (Interstate Rubricator of Scientific and Technical Information) for your topic can be determined on the website <http://www.grati.ru>. It is indicated in the upper left corner of the manuscript. Left alignment, font size – 14. The style file can be downloaded from the journal website <https://bulbio.enu.kz/>.

Article type. The article type is indicated immediately under the IRSTI (review or scientific article).

Title of the article. After the IRSTI, the title of the article is written in the center in a line, bold, straight, font size – 14.

Author(s). Initials and surnames of the author(s), centered, bold font, font size –14. Be sure to () add a click on ORCID.

Place of work of the author(s), city, country, e-mail. The full name of the organization (abbreviations are not allowed), city, country (if the authors work in different organizations, it is necessary to put the same icon next to the author's surname and the corresponding organization); E-mail of the author(s) - in brackets, italics (* - the author is indicated for correspondence). Center alignment, font size - 14, italics.

The **Abstract** should contain no more than 250 words and should be presented in one paragraph. The Abstract should be a brief summary of the article, reflecting its features and preserving the structure of the article, concisely and clearly describing the main specific results of the work and the conclusions arising from them. Alignment - by width, font size - 14.

Key words (Key words) include 5-7 words and/or phrases and should reflect the main content of the article and define the subject area of the study, appear in the text of the article. Key words are separated from each other by a comma, there is no period at the end. Alignment by width, font size – 14.

DOI for each article

DOI: <https://doi.org/10.32523/2789-4320-2024-1-xx>

Received: XX.XX.XXXX. Accepted: XX.XX.XXXX. Available online: XX.XX.XXXX.

The main part contains the following parts according to the structure of the IMRAD article: (introduction (statement of the problem, goals, history), research methods, discussions/results, conclusion), (written from a paragraph, highlighted in bold):

Introduction. This section briefly outlines the history of the issue, with mandatory consideration of works in which similar or related studies have already been conducted and formulates the purpose of the study.

The main requirement for the presentation **of materials and the main principle of research methods** is that the procedures should be described as briefly as possible, but the description should allow the experiments to be reproduced. Only new methods should be described in detail; previously published and well-known methods should be cited in the list of references, indicating the author and/or the name of the method. Experimental articles should contain statistical processing methods.

Results must contain a brief description of the obtained experimental data (tables and figures are numbered sequentially with Arabic numerals and included directly in the text of the article, they must have a serial number and title, accompanied by a reference to them in the text of the article). Figures and graphs must be presented in one of the standard formats: PS, PDF, TIFF, GIF, JPEG, BMP, PCX. Bitmaps must be made with a resolution of 600 dpi. All details must be

clearly shown in the figures. This section should not include a discussion of the results; it is possible to limit yourself to an explanation of the cause-and-effect relationships between the experiments described.

All figures and tables should be cited in the main text as Figure 1, Table 1, etc. Example:

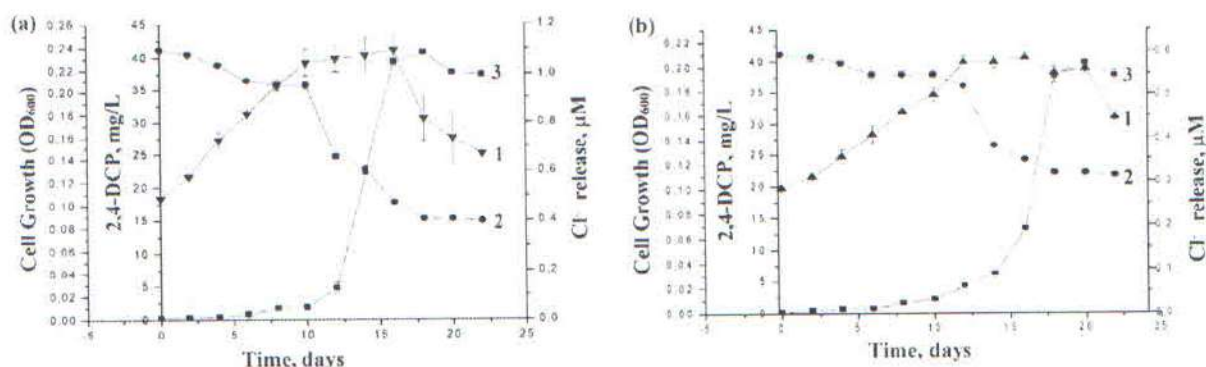


Figure 1. This is a figure. The diagrams have the same formatting. If there are several panels, they should be listed as follows: **a)** Description of what is in the first panel; **b)** Description of what is in the second panel. Figures should be placed in the main text near where they are first mentioned. The description in the figure should be in the language of the article.

Tables should be placed in the main text next to their first mention. Example:

Table 1

Physicochemical characteristics of starch [14]

	Crambe kotschyana	Warty cabbage	Potato
Amylose, %	18.5±0.8	26.5±1.4	22.3±2.5
Amylopectin, %	81.5±2.9	73.5±3.0	77.7±5.4
AM/AP ratio	0.23±0.04	0.36±0.02	0.29±0.03
Ash content, %	0.31±0.01	0.25±0.04	0.28±0.03
Mass fraction of protein, %	0.18±0.001	0.29±0.0009	0.22±0.002
Mass fraction of fat, %	0.1±0.005	0.12±0.004	0.07±0.001

Note: compiled based on data from [14]

The discussion should include an interpretation of the results (but not a repetition) and a comparison with previously published data. At the end of the section, it is recommended to formulate the main conclusion containing an answer to the question posed in the introductory part of the article.

If necessary, the manuscript ends **with a conclusion**.

Authors' Contributions. The contribution of each author (in the form of initials of first and last name) to the work and preparation of the manuscript should be described (section "Authors' Contributions"). For example: A.B. – concept and supervision of the work; V.G. – conducting the experiments; V.D. – discussion of the research results; E.Zh. – writing the text; A.B. and E.Zh. – editing the text of the article.

Funding. If the work was carried out with the support of any organization, in the "Funding" section, you should indicate which fund and grant supported this research, indicating the grant number.

Acknowledgments. In the "Acknowledgments" section, at the authors' request, information about any assistance in carrying out the work and preparing the article is provided.

Conflict of Interest. In the section "Conflict of Interest" the authors declare the presence or absence of a conflict of interest in the financial or any other sphere. This section is mandatory.

Compliance with ethical standards. The section “Compliance with Ethical Standards” is also mandatory. If the studies were conducted on animals, this section states: “All procedures performed in studies involving animals complied with the ethical standards of the institution where the studies were conducted and the approved legal acts of the Republic of Kazakhstan and international organizations.” If the studies were conducted with people, the section “Compliance with Ethical Standards” states: “All procedures performed in studies involving people comply with the ethical standards of the National Committee on Research Ethics and the 1964 Helsinki Declaration and its subsequent amendments or comparable ethical standards. Informed voluntary consent was obtained from each of the participants included in the study.” If the articles do not contain a description of studies involving people or using animals and performed by any of the authors, the section “Compliance with Ethical Standards” states: “This article does not contain a description of studies performed by the authors involving people or using animals as objects.”

References. All articles, publications, and materials submitted for publication in the journal must be accompanied by a list of references formatted following the journal requirements (Vancouver style).

The list of references must contain at least 30 references but must contain references to all the fundamentally important recent publications on the given issue. The list of references is numbered in the order in which the references are mentioned in the text. The reference must contain only those sources that are referenced in the text of the article. Punctuation marks, spaces, uppercase and lowercase letters must be observed. Reference numbers should be enclosed in square brackets []; for example, [1], [3-6] or [1,3]. References to unpublished articles, the results of which are used in proofreading, are not accepted. For authors using EndNote, Reference Manager, or Zotero, it is recommended to use the Vancouver style. In addition, the DOI of the article must be indicated. There is no period at the end after indicating the DOI.

Below is an example of the formatting of links to scientific journals, monographs, collections, dissertations, and electronic resources (programs/databases): 1. Smith J. Biochemistry of Fish. 2nd ed. Oxford: Oxford University Press; 2020. – **Books, one author.**

2. Brown K, White P, Green R. Advanced Drug Discovery: Methods and Applications. London: Springer; 2018. – **Books, several authors.**

3. Jones M. Enzyme kinetics in drug metabolism. In: Black P, editor. Handbook of Pharmacokinetics. New York: Academic Press; 2015. p. 45-67. doi.org/10xxxxxxxxxxxxx – **Books, chapter in a book.**

4. Johnson TR. The role of protein interactions in neuropharmacology. J Neurochem. 2021;150(4):245-56. doi.org/10xxxxxxxxxxxxx – **Articles in journals, one author.**

5. Lee A, Kim B, Patel R. Novel insights into blood-brain barrier permeability. Pharmacol Res. 2019;135:30-41. doi.org/10xxxxxxxxxxxxx – **Articles in journals, several authors.**

6. Wong J, Smith L, Cooper R, et al. Macromolecular transport across cellular membranes. Mol Biol Cell. 2020;31(5):1123-35. doi.org/10xxxxxxxxxxxxx – **Articles in journals, six or more authors (after three we indicate “et al.”).**

8. World Health Organization. Global health estimates 2023 [Internet]. Geneva: WHO; 2023 [cited 2025 Feb 10]. Available from: <https://www.who.int/gho> – **Electronic sources, website.**

9. Müller T. Biochemical pathways in neurodegenerative diseases [dissertation]. Munich: Ludwig Maximilian University; 2017. – **dissertations and theses.**

After the main text of the article and the list of references, an abstract is given in Kazakh and English (if the article is in Kazakh, then the abstracts are in Russian and English; if the article is in English, then the abstracts are in Kazakh and Russian), which is an authentic translation of the title of the article, the initials and surnames of the authors in English transcription, the names of institutions with indexes, the names of cities and countries, the text of the abstract and keywords. Example:

Ауыр металдардың микроорганизмдердің өсуіне әсері

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¹ Биология институты, Астана, Қазақстан

² Биология университеті, Шымкент, Қазақстан

Аңдатпа. Ол 250 сөзден аспайтын бір абзацқа ұсынылады. Аңдатпада мақаланың ерекшеліктерін көрсететін қысқаша мазмұны жазылдады. Аңдатпа мақаланың құрылымын сақтай отырып, жұмыстың негізгі нақты нәтижелерін және олардан туындайтын қорытындыларды қысқаша және сипаттауы қажет — туралау - ені бойынша, шрифт өлшемі - 14.

Түйін сөздер: 5-7 сөз немесе сөз тіркесі

Влияние тяжелых металлов на рост микроорганизмов

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² Университет биологии, Шымкент, Казахстан

Аннотация. Она должна содержать не более 250 слов и должны быть изложены в одном абзаце. Аннотация должна представлять собой краткое изложение статьи, отражающее ее особенности и сохраняющее структуру статьи, сжато и ясно описывающим основные конкретные результаты работы и вытекающие из них выводы. Выравнивание – по ширине, кегль – 14.

Ключевые слова: включают 5-7 слов и/или словосочетаний

Bibliography in transliteration. If the bibliography contains works presented in Cyrillic, it is necessary to provide the bibliography in two versions: the first – in the original, the second – in the Romanized alphabet (transliteration). This section is mandatory. To transliterate Russian text into Latin, you can use the free online program www.translit.net. This online platform does not transliterate individual letters of the Kazakh alphabet. Authors should make corrections here after transliterating the Kazakh text, according to the following rules:

ә	ғ	ң	ө	ү	ұ	к	і
a	g	n	o	u	u	k	i

Example:

References

1. Ahmetzhanova SB. Vysshee obrazovanie v Kazahstane: problemy i perspektivy razvitiya [Higher education in Kazakhstan: problems and development prospects]. *BULLETIN of the L.N. Gumilyov Eurasian National University. Chemistry. Geography. Ecology Series*. 2016;(5):10-18. doi.org/10xxxxxxxxxxxxx [in Russian] – **In the absence of an official translation of the article title and the presence of an official translation of the journal title**
2. Tokaev K-Z. Ezhegodnaja avgustovskaja konferencija s uchastiem glavy gosudarstva [Annual August conference with the participation of the head of state]. *Zakon.kz* [Internet]. 2019 Aug 16 [cited 2023 Jul 25]. Available from: <https://www.zakon.kz/redaktsiia-zakonkz/4981834-polnyy-tekst-vystupleniya-tokaeva-na.html> [in Russian] – **In the absence of an official translation of the title of the article**
3. Cinidu M, Gerojannis V, Ficilis P. Ocenka faktorov, opredeljajushhih kachestvo vysshego obrazovaniya: jempiricheskoe issledovanie [Assessing the factors determining the quality of higher education: an empirical study]. *Obespechenie kachestva v obrazovanii* [Quality

Assurance in Education]. 2010;18(3):227-44. doi.org/10xxxxxxxxxxxxx [in Russian] – **In the absence of an official translation of the article title and the name of the journal**

4. Grekov B. *Istorija i kino. Sovetskij istoricheskij fil'm* [History and cinema. Soviet historical film]. Moscow: Goskinoizdat; 1939. [in Russian] - **In the absence of an official translation of the book title**

5. Timiryazev K.A, *The Life of a Plant*. Moscow: Izd. A.L. Vasilyeva. 1936. [in Russian] – **If there is an official translation of the book title**

6. Romashova M.V. *Iskljuchenie iz pravil: sovetskie detskie doma v poslevoennoe desjatiletie* [An exception to the rule: Soviet orphanages in the post-war decade]. In: *Astafevskie chtenija: konferencija «Vremja veselogo soldata»: cennosti poslevoennogo obshhestva i ih osmyslenie v sovremennoj Rossii* [Astafyev Readings: Conference "Time of the Merry Soldier": Values of Post-War Society and Their Understanding in Contemporary Russia]. Perm'; 2009. p. 108-16. doi.org/10xxxxxxxxxxxxx [in Russian] - **In the absence of an official translation of the title of the article and the presence of an official translation of the name of the conference**

7. Romashova M.V. *Sovetskoe detstvo v 1945-seredine 1950-h gg.: Osobyje proekty i provincial'nye praktiki: na materialah Molotovskoj oblasti* [Soviet childhood in 1945-mid-1950s: Special projects and provincial practices: based on materials from the Molotov region]. [dissertation]. Perm'; 2006. [in Russian] – **In the absence of an official translation of the dissertation title**

Then, it is necessary to provide "information about the authors" in 3 languages. In "**Authors' information**", indicate all the data - full name - author for correspondence, academic degree, specialty, position, organization, address, zip code, city, country, ORCID - in full.

For example:

Сведения об авторах:

Оспанов Галымжан Маратович – автор-корреспондент, кандидат биологических наук, доцент, старший научный сотрудник лаборатории биотехнологии растений Института биологии, Коргалжынское шоссе, 53/8, 010000, Астана, Казахстан.

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Авторлар туралы мәліметтер:

Оспанов Ғалымжан Маратұлы – хат-хабар авторы, биология ғылымдарының кандидаты, доцент, өсімдік биотехнология зертханасының аға ғылыми қызметкері, биотехнология институты, Қорғалжын тасжолы, 53/8, 010000, Астана, Қазақстан.

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Ahmetova Bibgul – candidate of biological sciences, professor, University of Biology, 215 Zheltoksan Str, 160000, Shymkent, Kazakhstan.

7. Grounds for refusal to publish the submitted article

7.1 Inconsistency with the thematic direction of the Journal;

7.2 Failure to comply with the technical requirements of the Journal;

7.3 The article has not passed the anti-plagiarism check;

7.4 As a result of checking in the Antiplagiat system, the presence of generated text was established;

- 7.5 The author did not promptly make the corrections recommended by the reviewers;
7.6 If there are two negative reviews for this article.

8. Copyright

Authors who publish their articles in this journal agree to the following:

The authors retain copyright in the work and grant the Journal the right of first publication of the work under the terms of a Creative Commons Attribution License, which permits others to distribute the work, provided that they retain attribution to the original authors and to the original publication in this Journal. The authors retain the right to make separate contractual arrangements for non-exclusive distribution of a version of the work as published here (e.g., depositing it in a university repository, publishing it in a book), with a link back to its original publication in this Journal. The authors are encouraged to make their work available on the Internet (e.g., in a university repository or personal website) before and during the review process by this journal, as this may lead to productive discussion and increased citation of the work (See The Effect of Open Access).

9. Privacy

Names and email addresses entered on this journal's website will be used solely for the purposes indicated by this journal and will not be used for any other purpose or provided to other individuals or organizations.

10. Review procedure

The manuscript submitted by the author is sent to the editorial board of the journal (two versions of the manuscript, one of which should not contain information about the authors (full name, place of work, information about the authors). Together with the manuscript, the author(s) send(s) to the editorial board of the journal a cover letter (see cover letter template) about the autonomous nature of the submitted manuscript, consent to check the article for plagiarism, inclusion in various databases and information systems, including full-text versions, in case of publication and granting exclusive rights to the publisher. The manuscript is checked for compliance with the thematic focus of the journal, as well as for compliance with formal and technical requirements.

The manuscript is then checked for originality using the plagiarism check system. Based on the results of the automatic plagiarism check, a full electronic report on the check is posted. Articles that do not receive a satisfactory result (the threshold percentage of article originality is 70%) are not accepted for further consideration, and the corresponding author is sent a corresponding notification.

The manuscript is then sent for review, which is carried out confidentially through the journal's electronic platform without specifying information about the authors. Articles are reviewed by members of the editorial board, as well as invited reviewers - leading experts in the relevant field in Kazakhstan and other countries. Reviewers are required to provide a clear, objective and reasoned assessment of the manuscript's compliance with the main scientific criteria, as well as its quality and significance. The journal uses "double-blind" review, carried out by at least two scientists who have academic degrees of candidate of sciences, doctor of sciences, doctor of philosophy (PhD) and scientific specialization on the topic of the manuscript being reviewed. The review period by reviewers is 20 days, but at the request of the reviewer it can be extended. The reviewer has the right to refuse the review in the event of an obvious conflict of interest that affects the perception and interpretation of the manuscript materials.

A manuscript that has received a negative review from an independent reviewer is rejected by the editorial board. An article that needs revision is sent to the authors with the reviewers' comments. The authors must take into account all the comments made during the review process. All changes made must be highlighted in yellow and an additional author's response with comments to the review must be attached (in a separate file). Revision of an article should not take

more than one month from the moment an email is sent to the authors about the need to make changes. The article revised by the author is re-submitted for re-review. If the authors refuse to revise the materials, they must notify the editors in writing of their refusal to publish the article. If the authors do not return the revised version of the manuscript within 1 month from the date of receipt of the reviewer's comments, the editors will remove it from the register. In such situations, the authors are sent a corresponding notification about the manuscript being removed from the register due to the expiration of the period allotted for revision.

Manuscripts that have positive opinions from two reviewers and the Editor-in-Chief are recommended for publication. If one of the reviewers has given a positive opinion on the manuscript, and the second one has given a negative opinion, the manuscript is sent by the Editor-in-Chief to a third reviewer or a member of the editorial board who is an expert in the subject of the manuscript. If a positive opinion is received by the third reviewer or a member of the editorial board, the final decision on accepting/rejecting the manuscript for publication is made by the Editor-in-Chief. Manuscripts approved by the editorial board are submitted to form an issue of the journal. If the author and reviewers have irresolvable disagreements regarding the manuscript, the editorial board has the right to send the manuscript for additional review.

In conflict situations, the decision is made by the editor-in-chief at a meeting of the editorial board in accordance with the recommendations of the reviewers. An article that is not recommended for publication and re-examination by the decision of the editorial board is not accepted. A message about the refusal to publish is sent to the author by e-mail.

After the editorial board of the journal has made a decision to accept an article for publication, the editors inform the author of this and indicate the publication dates.

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