

# Instructions for authors

## 1. About the journal

*Biochemia Medica* is the official peer-reviewed journal of the Croatian Society of Medical Biochemistry and Laboratory Medicine published in print (three times *per year*) and electronically (six times *per year*), according to the schedule available on the Journal website. The journal is intended for all professionals who share the interest in clinical chemistry and laboratory medicine.

Manuscripts are published in English language. All submitted manuscripts are given equal consideration, irrespective of the country they originate from, as long as the following main criteria are met:

- A manuscript is within the scope of the Journal
- A manuscript is written and prepared according to the Journal's **Instructions for authors**. Significant non-compliance with the Journal's Instructions for authors increases the probability of desk rejection.

The following topics fit into the scope of the Journal: clinical chemistry, hematology and hemostasis, molecular diagnostics, immunology, analytical toxicology, clinical laboratory pharmacology and endocrinology. Development and clinical evaluation of methods and technologies applicable to clinical chemistry and laboratory medicine are welcome as well as are contributions focusing on laboratory organization, automation, quality and safety in laboratory medicine, harmonization and standardization, reference methods and values. On a regular basis, the Journal also publishes pre-analytical case reports (Preanalytical mysteries), articles dealing with applied biostatistics (Lessons in biostatistics) and research integrity (Research integrity corner).

Genetic association studies, studies on animal models and/or cell cultures are not in the scope of the *Biochemia Medica* journal.

Authors are invited to contact the Editorial Board if in doubt about any aspect of scope, format, or content of a proposed contribution.

Throughout the entire editorial process, *Biochemia Medica* follows the best practice guidelines devel-

oped by the Committee on Publication Ethics (COPE) (available at: <https://publicationethics.org/core-practices>) and Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals by International Committee of Medical Journal Editors (ICMJE) (available at: <http://www.icmje.org/recommendations/>).

Editors of *Biochemia Medica* are committed to ensuring integrity and promoting innovative and evidence-based sources of information in order to maintain the quality and impact of the papers published, according to the principles set by the Sarajevo Declaration on Integrity and Visibility of Scholarly Publications communication (<http://www.cmj.hr/2016/57/6/28051276.htm>).

## Journal income

*Biochemia Medica* is an open access journal, and all its content is free and available at the Journal's webpage. The Journal is maintained and published with financial support from the members of the Croatian Society of Medical Biochemistry and Laboratory Medicine (CSMBLM) and grants given by the Republic of Croatia's Ministry of Science and Education. Occasionally, *Biochemia Medica* may publish promotional materials and advertisements in order to promote sponsorship with emphasis on special subjects from the field of laboratory medicine. Advertisements are displayed randomly on Journal's home page and are never linked to any specific content. All editorial work and peer-review are maintained voluntarily.

## Article processing charges

Manuscript submission, manuscript processing and publishing are free of charge.

## Editorial and peer review procedure

The Editor-in-Chief evaluates each submitted manuscript in order to establish if the main criteria

for further manuscript consideration are met. Manuscripts that do not meet the main criteria (scope of the journal, adherence to Instructions for authors, priority of publication) are rejected without peer-review. Contributions that qualify for further consideration are further processed. After initial screening by the Editor-in-Chief, each manuscript is checked by the Research integrity editor for any type of research misconduct or other questionable research practice that may have occurred. If any suspicion is raised at this point, a written report is compiled by the responsible Research integrity editor and forwarded to the Editor-in-Chief. The Editor-in-Chief decides to return the manuscript for correction or rejects the manuscript because of unacceptable research practice. If there are no questionable research practices, the manuscript is further subjected to peer-review and additional editorial review of the methodological quality, statistical analysis, and data presentation by an Assistant editor. The estimated time from submission to the first decision is 6-8 weeks. If a manuscript is being considered for publication but requires modifications and improvements, a revision is requested. The authors should follow the reviewers' comments in order to reply or rebut them, if applicable. Authors are usually given 4 weeks for manuscript revision. When all the requirements in the revision process are adequately fulfilled, the manuscript is accepted for publication.

After acceptance, the manuscript is being processed by a Technical editor in order to ensure that all contributions fulfil editorial standards. After final editorial processing, the copy-edited PDF version of the manuscript is sent to the corresponding author for final proofreading. In this step of the editorial process, only minor linguistic and spelling corrections are allowed without content alterations. Occasionally, authors might be asked to clarify or explain specific sections of the manuscript. Since no corrections or alterations are possible after final proofreading and following publication, authors are advised to check the edited version of the manuscript thoroughly and carefully. The corresponding author is asked to return the corrected version of the manuscript within 2 days.

*Biochemia Medica* gives equal consideration to every carefully performed study investigating an important question relevant to the Journal's readership, whether the results are negative or positive.

The Editor-in-Chief has full authority over the complete editorial process and decision-making responsibility.

## Peer-review policy

Manuscripts that meet the scope of the Journal and are prepared according to Instructions for authors are sent to peer-review. The journal is not responsible for reviewing and proofreading congress and symposium abstracts. *Biochemia Medica* favors a double-blinded peer-review process, which means that both reviewer and author remain unknown to each other. It is our belief that this model ensures objectivity during the process. All manuscripts are reviewed by at least two peer-reviewers. Additionally, the manuscript may be reviewed by a statistical reviewer, if necessary.

*Biochemia Medica* advises its reviewers to adhere to the Journal's *Guidelines for peer-reviewers* available on the Journal webpage. In order to improve peer-review process and maintain high-quality reviews, all peer-reviewers are encouraged to use *Reviewer's Check List* ([https://www.biochemia-medica.com/assets/images/upload/Reviewers\\_\\_Authors/Checklist\\_for\\_reviewers\\_0.pdf](https://www.biochemia-medica.com/assets/images/upload/Reviewers__Authors/Checklist_for_reviewers_0.pdf)) while reviewing the manuscript. For additional information on ethical standards in peer-review process, all reviewers are advised to read the article Šupak-Smolčić V, Šimundić AM. *Peer-review policy and guidelines for Biochemia Medica journal. Biochem Med (Zagreb) 2014;24:321-8.*

## Editorial submission

Editors may occasionally also wish to submit manuscripts to *Biochemia Medica*. All manuscripts submitted by the editors are considered and processed in the same way as all other manuscripts received by the Journal and according to ethical standards for good editorial practice (available at: <https://publicationethics.org/core-practices>). In or-

der to assure impartial decision making and avoid potential conflict of interest, the author of such manuscript is excluded from any editorial handling of the manuscript (review, editing and final decision).

## Editorial research

In order to improve our editorial procedure and detect potential non-conformities, Editorial Board occasionally conducts research to obtain the information needed. All manuscripts submitted to *Biochemia Medica* may be used for such research.

## 2. Publication ethics

The Editorial board of *Biochemia Medica* strongly promotes research integrity and aims to prevent any type of scientific misconduct and questionable research practice, such as fabrication, falsification, plagiarism, redundant publication, and authorship problems. All submitted manuscripts are primary revised by the Research integrity editor and checked using Crossref Similarity Check (powered by iThenticate) screening system for potential plagiarism (more information available at: <https://www.crossref.org/services/similarity-check/>). In resolving any potential scientific misconduct (detected prior or after publication), *Biochemia Medica* follows flowcharts provided by the Committee on Publication Ethics (COPE) and additionally consults COPE for any unclear cases (available at: <http://publicationethics.org/resources/flowcharts>). A more detailed description of the publication ethics policies is available on the Journal website.

### Article retractions or expressions of concern

If editorial investigation according to all relevant recommendations proves misconduct in the published article and if the article fulfils one of the listed reasons for retraction given by the COPE's "Retraction guidelines" (available at: <https://publicationethics.org/retraction-guidelines>), then the Editors of *Biochemia Medica* will issue a Notice of retrac-

tion. Notice of retraction will be published according to the recommendation given in the COPE's document and in respect to the checklist for retraction given by the European Association of Science Editors (EASE) (available at: <https://ease.org.uk/publications/ease-statements-resources/ease-standard-retraction-form/>). If there is no strong evidence for retraction, but some concerns can be raised, an Expression of concern may be published.

**IMPORTANT:** Article corrections published as Corrigendum or Erratum are not in any way questionable research practices, but corrections of unintentional mistakes made either by the authors of the article or Journal's editors during the manuscript editing process. If author corrections are needed after publication, a corresponding author should submit a request to the Editorial office of the Journal indicating the necessary corrections. Editors will review the corrections requested according to the recommendations issued by ICMJE (<http://www.icmje.org/recommendations/>). If acceptable, the corrections will be published in the form of Erratum or Corrigendum as soon as possible, referring to the original publication.

## Authorship

*Biochemia Medica* adheres to the guidelines for authorship set forth by the International Committee of Medical Journal Editors (ICMJE) (available at: <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>).

Each author should meet all four criteria as follows:

1. substantial contributions to conception and design, 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 published;
4. agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

All who have made substantial contributions to the work but do not meet the criteria for authorship should be listed in the **Acknowledgments** section (technical help, writing assistance, language translation service, general support, financial and material support). All contributors named in the **Acknowledgments** section of the manuscript must give their permission to be named. The authors are required to confirm that this permission was obtained during the manuscript submission process.

*Biochemia Medica* has adopted the CRediT taxonomy (Contributor Roles Taxonomy available at: <https://casrai.org/credit/>) for recognition of contributor roles with the intention of better transparency and avoiding possible authorship disputes. Each author's contribution has to be defined by CRediT terms that best describe their role in the study. Authors may have multiple roles and multiple authors may have the same role. CRediT statements for every individual author are provided during the submission process. Please keep in mind that the authorship is still based on the above stated four ICMJE criteria. More details are available on the Journal website.

*Biochemia Medica* has adopted the ORCID system by which each author is identified with a unique identification number. ORCID ensures transparency in authorship and personal identification. It is easily obtained and available for free at <https://orcid.org/>.

If any changes in the authors list is made after initial submission or during revision of the manuscript, the corresponding author should contact the Editorial office of the Journal and explain the reasons for the change. All changes in the author list, including additions, deletions, order change or contributions differently attributed, must be approved by all authors. In dealing with authorship disputes *Biochemia Medica* follows COPE guidelines and flowcharts (available at: <https://publicationethics.org/authorship>).

For more information on *Biochemia Medica's* policy on authorship, readers and authors are encouraged to read the article Šupak-Smolčić V, Šimundić AM. *Biochemia Medica's* editorial policy on authorship. *Biochem Med (Zagreb)* 2015;25(3):320-3.

## Ethical approval and informed consent

When reporting trials on human subjects, authors should indicate whether the procedures were in accordance with the ethical standards set by the responsible human experimentation committee (institutional and national) and latest version of the Declaration of Helsinki given by World Medical Association (available at: <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>). Ethical approval (institutional or national) should be obtained for every study that includes collection of additional patient sample of any biological material (more than those required for the medical evaluation). Information on ethical approval (approval number) must be stated in the manuscript.

All subjects should sign an informed consent form and this information should be provided in the manuscript. Signed informed consent forms should be archived by the authors. Authors are obliged to provide a statement that they have received and archived all patient informed consent forms, as required during the manuscript submission process. It should be noted that informed consent to participate in the research does not imply consent to publish personal individual data (names, pictures, hospital identification). Therefore, in situations when it is not possible to obtain complete anonymity without distorting scientific evidence, authors should add in the informed consent a clear statement of the subject's approval for publication of their personal data.

Regardless of the preserved anonymity, patients presented in case report articles should always sign informed consent. Case reports without patients' consent are not eligible for publication in *Biochemia Medica*. Specific types of case reports, Preanalytical mysteries, are not obliged to obtain informed consent if there are no patient's personal data revealed. If there is need to publish patient's rare diagnosis or specific demographic or personal data by which patient's identity can be implied, then the authors must obtain patient's signed informed consent.



*Biochemia Medica* will not consider for publication manuscripts in which the best ethical practice is not ensured, i.e. informed consent is missing and/or ethical approval is omitted.

To simplify the decision-making process on whether a type of study requires informed con-

sent and/or ethical approval, authors are encouraged to consult the table below reprinted from *Borovecki A, Mlinaric A, Horvat M, Supak Smolic V. Informed consent and ethical approval in laboratory medicine. Biochem Med (Zagreb) 2018;28(3):030201.*

Type of study	Study design	Informed consent	Ethical approval
Research	The material from patients/healthy donors is collected for research purpose	Required	Required
Method/instrument validation	The use of residual material	Not required	Required
	The material from patients/healthy donors is collected for research purposes	Required	Required
Research showing standard clinical/laboratory practices or the advancement of the standard practices	If it does not include a new method or instrument	Not required (it is implied that informed consent was previously given for the scope of the treatment)	Not required (it is considered that this is not research but clinical/laboratory practice)
Incidence/epidemiological research	The use of residual material or retrospective data collection	Not required	Required
Laboratory information system (database) data extraction	Retrospective data collection	Not required	Required
Laboratory management	Studies that do not include human subjects but collect data for measuring quality indicators (i.e. turnaround time, test utilization, non-conformities, etc.)	Not required	Not required
Survey	The participants are notified in the survey about the nature of the research and the future use of the data (publishing, etc.)	Not required (it is implied)	Not required
	Survey asking more intimate questions	Required	Not required
Case report	/	Required	Not required
Preanalytical case report	Patient specific information are not presented (patient is not identifiable)	Not required	Not required

### Clinical trial registration and data sharing

*Biochemia Medica* will take into consideration manuscripts dealing only with registered clinical trials in a public trial registry. Clinical trials have to be registered before first patient was included in the study. Since clinical trials are interventional research studies involving humans, it is necessary to obtain highest degree of ethical standards and transparency and responsible research conduct.

Furthermore, registration of clinical trial prevents any misuse or abuse of study data. *Biochemia Medica* endorses recommendation on clinical trials given by the ICMJE. More detailed information about the background on clinical trial registration are available at: <http://www.icmje.org/recommendations/browse/publishing-and-editorial-issues/clinical-trial-registration.html>.

There are numerous clinical trials registries and *Biochemia Medica* will give advantage to those which are registered in registries recommended by ICMJE because of more comprehensive and independent criteria for registration of trials. List of registries is available at: <http://www.icmje.org/about-icmje/faqs/clinical-trials-registration/>.

In respect to open science and complete transparency of research conduct, *Biochemia Medica* strongly encourages all authors to provide data collected during their study (i.e. data on which their results are based and conclusions drawn). There are numerous free repositories and *Biochemia Medica* does not endorse any but prefers those that can be connected to specific content using DOI number or to specific author ORCID related. Few examples of data repositories are:

Dryad Digital Repository (<https://datadryad.org/stash>)

Code ocean (<https://codeocean.com/>)

Zenodo (<https://zenodo.org/>)

Figshare (<https://figshare.com/>)

Harvard Datavers (<https://dataverse.harvard.edu/>)

DABAR (<https://dabar.srce.hr/dabar>)

For more information on specific requirements on data sharing please consult <https://fairsharing.org/> or <https://www.re3data.org/>.

Authors should provide a Data availability statement during manuscript submission and this statement will be published at the end of the article. Authors should not incorporate this statement in the manuscript because it could impair anonymity of double blind peer-review. If for some reason authors are not able to share their study data, they should provide an explanation in the Data availability statement. Few examples of Data availability statements can be found at: <https://www.springernature.com/gp/authors/research-data-policy/data-availability-statements/12330880>

## Copyright and publication license

After a manuscript is accepted for publication, the authors must guarantee that all copyrights to the

manuscript are transferred to *Biochemia Medica*. The publisher (Croatian Society of Medical Biochemistry and Laboratory Medicine) has the right to reproduce and distribute the article in printed and electronic form without asking permission from authors. All manuscripts published online are subject to *Creative Commons Attribution License CC-BY* which permits users to read, download, copy, distribute, print, search, or link to the full texts of these articles in any medium or format. Also, users can modify and build upon the material, provided the original work is properly cited and any changes properly indicated. Complete legal background of license is available at: <https://creativecommons.org/licenses/by/4.0/legalcode>.

*Biochemia Medica* requires authors to obtain and acknowledge copyright permission to use, reproduce or adapt any copyrighted material (i.e. figures, research tools) from another source (copyright holder).

## Archiving policy

*Biochemia Medica* archives all submitted manuscripts whether rejected or accepted and keeps them strictly confidential. The authors have the right to archive the accepted version of their work (postprint) or the final published article (version of record) in an institutional website, personal website, public repository or any other form of archive, provided the original work is properly cited and any changes properly indicated.

*Biochemia Medica* will consider for publication any manuscript that is in the Journal's scope and prepared according to the Instructions for authors regardless of its existence in preprint database. *Biochemia Medica* does not consider trial preregistration, conference abstract or presentation as pre-publication of submitted manuscript. However, authors should declare all accessible work that is connected to their manuscript.

## Conflict of interest

*Biochemia Medica* encourages all authors and reviewers to report any potential conflicts of interest

to ensure complete transparency regarding the preparation and reviewing the manuscript (research funding, grants, sponsorship, competing interests etc.). According to the International Committee of Medical Journal Editors (ICMJE): "Conflict of interest exists when an author (or the author's institution) has financial (employment, consultancies, stock ownership, honoraria and paid expert testimony) or personal relationship, academic competition or intellectual passion that inappropriately influences his actions." (available at: <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/author-responsibilities--conflicts-of-interest.html>). Authors are required to confirm that all applicable conflicts of interest are declared during the manuscript submission process. A conflict of interest statement should be stated on the Title page of each submitted manuscript and will be published at the end of the manuscript. Reviewers are asked to report conflict of interest when responding to the invitation by sending short statement to the editorial office. If conflict of interest appears during review process, reviewers should report them accordingly.

Good editorial practice of *Biochemia Medica* journal implies unbiased editorial decisions. If an Editor feels that his judgement will not be objective due to potential conflict of interest, then he will excuse himself from further editorial decisions. Additionally, editors will never use any information they acquired during their editorial work. Each Editor of *Biochemia Medica* as well as guest editors should sign conflict of interest statement.

In resolving specific issues regarding undisclosed conflict of interest in submitted or published manuscript, *Biochemia Medica* consults relevant COPE flowcharts available at: <https://publicationethics.org/resources/flowcharts-new/conflict-interest> and <https://publicationethics.org/resources/flowcharts/undisclosed-conflict-interest-published-article>.

## Declaration of generative AI in scientific writing

*Biochemia Medica* fully adopts COPE statement on use of artificial intelligence (AI) and AI-assisted

technologies in scientific publishing. For more information, please visit: <https://publicationethics.org/guidance/cope-position/authorship-and-ai-tools>.

Authors are allowed to use generative AI and AI-assisted technologies during the writing process only to improve readability and language.

Artificial intelligence and AI-assisted technologies should not be listed as an author or co-author, or be cited as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans.

Authors should disclose in their manuscript the use of AI and AI-assisted technologies in the writing process in the Materials and methods section by citing the name, version and source of the AI-assisted technologies. A statement will appear in the published work. Please note that authors are ultimately responsible and accountable for the contents of the work.

This declaration does not apply to the use of basic tools for checking grammar, spelling, references etc. If there is nothing to disclose, there is no need to add a statement.

## Author's appeal

All authors are welcome to submit an appeal if they feel there were irregularities during the submission process. Journal will provide an answer based on the stated editorial policy and in a timely manner. All appeals can be sent to the *Biochemia Medica* e-mail address: [editorial\\_office@biochemia-medica.com](mailto:editorial_office@biochemia-medica.com).

If the appeal raises the concern about integrity of editorial process, peer-review process or editor's decision, the *Biochemia Medica* will follow relevant flowcharts given by the COPE when dealing with such appeals. However, the Editor-in-Chief retains the editorial right to desk reject manuscripts that do not comply with the criteria for manuscript consideration.

When the issue cannot be resolved internally than the anonymized case can be presented to COPE Forum or COPE Council for advice and help.

Readers and authors are also welcomed to submit comments to published articles. Authors of criticized article have the opportunity to respond to such comments. All such written material should be submitted as any other manuscript through on-line submission system.

### 3. Manuscript submission

The corresponding author is responsible for manuscript submission and represents the whole group of authors in the submitted manuscript during the editorial and production process. During the process of manuscript submission, the corresponding author is asked to fill a questionnaire regarding important aspects of manuscript processing such as: authorship statement and CRediT contributions, statement of originality (author(s) declaration that the manuscript has not been previously published elsewhere in any language and is not under consideration by any other journal), conflict of interest disclosure, protection of research participants, data availability statement, copyright transfer and publication license.

Instructions for authors comply with the "Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals" (<http://www.icmje.org/recommendations/>). Editors hold the right to make all the necessary changes to the language and style of the original manuscript in order to adhere to the uniform standards of the Journal.

### Reporting guidelines

When reporting on specific study design, authors should prepare the manuscript according to relevant guidelines. Reporting guidelines were created to help the authors, editors, reviewers and readers to obtain enough detail to comprehend and evaluate the conducted study. All relevant data and updates on such guidelines are given by the EQUATOR Network (available at <http://www.equator-network.org/>) and the National Library of Medicine Research Reporting Guidelines and Initiatives (available at [https://www.nlm.nih.gov/services/research\\_report\\_guide.html](https://www.nlm.nih.gov/services/research_report_guide.html)). Articles with

specific study design should be submitted together with appropriate checklist also available at <http://www.equator-network.org/>.

### Types of submission

Contributions to the Journal are classified into the categories listed in the table below. The maximum word count does NOT include the title, authors and affiliations, abstract, keywords, subheadings, table and figure legends, and references. However, it does include the text in the tables, if any.

Submission type	Maximum word count	Maximum tables and figures	Maximum number of references
Letter to the Editor / Reply	1000	1	5
Editorial	1500	0	10
Opinion paper	2000	2	10
Position paper	2000	2	10
Review	5000	8	100
Lessons in biostatistics	3000	8	30
Research integrity corner	3000	8	30
Original article	5000	8	30
Short communication	1500	3	10
Case report	3000	3	30
Preanalytical mysteries	3000	3	30

For Letters to the Editor, authors are kindly asked to contact the Editor-in-Chief prior to submission. In general, Letters to the Editor report observations and discuss previously published original articles in the Journal. The authors of already published articles in the *Biochemia Medica* will be given the opportunity to Reply to Letters commenting their papers, and both contributions will be published together. Letters to the editor should include an unstructured abstract.

Editorial papers are usually invited contributions. Editorials comprise expert opinions and observations on a specific topic of laboratory medicine or



content published in the Journal. They should include an unstructured abstract.

Opinion papers reflect the author(s) original and personal view on a specific subject pertaining to laboratory medicine. The author(s) view should be original, innovative and supported by valid arguments based on already published data. Unlike Editorials and Letters to the Editor, Opinion papers should not refer to or comment on specific content published in the Journal.

Position papers are contributions which focus on a specific topic in laboratory medicine calling for discussion or reassessment of a neglected subject matter. They should contain a clear position on the topic discussed and propose clear solutions or actions. An unstructured abstract should be included.

Reviews are submitted directly by the authors or are invited submissions. Reviews are intended to encompass a comprehensive overview of a topic, including clinical and analytical information, current relevance and future directions. Reviews should include an unstructured abstract.

Original articles are submitted directly from authors. The subject investigated should be original and in the scope of the Journal. The novelties brought in an original article should be substantiated with detailed information to enable the reader to understand the subject and allow replication of the work presented. Original articles should be structured as follows: Abstract, Keywords, Introduction, Materials and methods, Results, Discussion, Acknowledgments (if applicable), References, and Tables and Figures. If further content organization is needed, subheadings within these main sections might be introduced. The abstract should be structured, as described in the formatting section below. Supplementary data/materials for this type of articles are allowed.

Short communications are concise formats submitted from authors and intended to briefly report original contributions and observations. Like original articles, they should be structured in the following sections: Abstract, Keywords, Introduction, Materials and Methods, Results, Discussion, Acknowledgments (if applicable), References, Tables and Figures. The abstract should be structured, as

described in the formatting section below. Supplementary data/materials for this type of contributions are allowed.

Case reports are intended to be educational and briefly describe unusual or rare occurrences or observations in the field of laboratory medicine, especially in cases where the laboratory helped in diagnosis, follow-up and treatment of an individual patient or condition. Case reports should include an abstract (structured or unstructured).

*Biochemia Medica* has introduced a specific section called Preanalytical mysteries intended to describe common or unusual preanalytical issues and the solutions on how to approach them. Preanalytical mysteries are essentially short case reports dedicated to educating laboratory professionals to better understand and resolve the various preanalytical challenges. Preanalytical mysteries should include an abstract (structured or unstructured). The text should be structured into the following sections: Introduction, Laboratory analyses, Considered diagnoses/Interventions/Further investigation (whatever applicable), What happened?/Solution, Discussion, What YOU should/can do in your laboratory to prevent such errors, Acknowledgments (if applicable), References, Tables and Figures. For Preanalytical mysteries, authors are referred to the template available in the article: *Simundic AM, Cadamuro J, Cornes M. Biochemia Medica introduces new section: Pre-analytical mysteries. Biochem Med (Zagreb). 2017;27:418-20.*

Lessons in biostatistics and Research integrity corner are specific invited contributions or submitted directly by authors, dedicated to educating authors and readers on different topics in applied biostatistics and research integrity issues. An unstructured abstract should be included. Supplementary data/materials for this type of contributions are allowed.

## Manuscript formatting

Authors should refer to this section in order to ensure that the submitted manuscript is prepared, formatted and written in accordance with the Journal requirements and policies. Please note

that contributions prepared according to the following requirements significantly reduce delays in the editorial process.

The manuscript should be written in English and uploaded *via* the online submission system available on the Journal website (<https://bm.manuscript-manager.net/>).

The following files should be submitted:

1. Cover letter
2. Title page
3. Highlights
4. Graphical abstract (original articles only)
5. Manuscript (**without authors and affiliations**)
6. Figures and/or graphs (optional)
7. Supplementary material (optional).

**Please note that a Manuscript file should not contain any information on the authors and their affiliation. Also, the Manuscript file name should not contain any reference to the author's name. This is important because all manuscripts are sent for double-blind peer review.**

During the on-line manuscript submission, corresponding author should provide accurate e-mail addresses of all authors.

## Cover letter

The cover letter is not shared with reviewers and should contain the following:

- corresponding authors' name;
- short description of the research study (2-3 sentences) and any other information regarding the manuscript that the Editors may find useful;
- body text word count and number of figures, tables, and graphs in the manuscript;
- suggested category for the manuscript (*e.g.*, original article, short communication or other);
- statement on all submissions and previous reports that might be regarded as redundant

publications (for example: studies based on the same sample, publications of the same biomarker, *etc.*);

- statement on the availability of the manuscript in preprint form in any of the available servers;
- reasons why authors presume their work may be of interest to the Journal's readership.

## Title page

The title page presents general information on the article and its authors and should be submitted on separate page (not attached to the Manuscript file). The title page text should be double-spaced and should include:

1. full title of the manuscript;
2. short title (up to 50 characters);
3. authors' names and affiliations in English (in the following order: department, institution, city, country);
4. corresponding author's e-mail address and full mailing address (institution, department, street, street number, zip code, city, country). Please note that the e-mail address of the corresponding author will be published in the final version of the article if a manuscript is accepted. The corresponding author should be marked with an asterisk (\*). The affiliations should be noted with a superscript number.

*For example:*

Giuseppe Lippi<sup>\*1</sup>, Emmanuel J Favaloro<sup>2</sup>

<sup>1</sup>Institute of Clinical Chemistry, Department of Morphological and Biomedical Science, University of Verona, Verona, Italy

<sup>2</sup>Department of Hematology, Institute of Clinical Pathology and Medical Research (ICPMR), Westmead Hospital, Westmead, Australia

\*Corresponding author: [glicppi@ao.pr.it](mailto:glicppi@ao.pr.it)

## Highlights

All manuscripts should include Highlights. Highlights are prepared as 3 to 5 bullet points (maxi-

imum 85 characters, including spaces, *per* bullet point) describing the main findings of the research presented in the manuscript. No jargon, acronyms, or abbreviations should be used; however, the use of keywords is encouraged. Highlights are submitted as a separate file (.doc or .docx) in the online submission system. Highlights will not appear in the PDF file and will not be printed, but will be visible as online content in order to help increase the visibility of the article.

## Graphical abstract

Manuscripts submitted as Original articles should include a graphical abstract. The graphical abstract should summarize the research described in the manuscript in a concise and visual form designed to capture the attention of the readership. Graphical abstracts are submitted as a separate file in the online submission system. Acceptable formats for graphical abstract are \*.jpg, \*.tiff, \*.png or MS Office files. Images should be provided with a minimum resolution of 300 dpi (h x w: 531 x 1328 pixels). For ease of browsing, the graphical abstract should have a clear start and end, preferably "reading" from top to bottom or left to right. The font used should be Arial with a size large enough. Graphical abstracts are submitted with no additional text, outline or synopsis. Any text or label must be part of the image file. Please do not use unnecessary white space or a heading "graphical abstract" within the image file. For reference, a basic graphical abstract template is available at: [https://www.biochemia-medica.com/assets/images/upload/Graphical\\_abstract/26102023\\_BM\\_templat\\_graphical\\_abstract\\_final.pptx](https://www.biochemia-medica.com/assets/images/upload/Graphical_abstract/26102023_BM_templat_graphical_abstract_final.pptx). Please note that size of the boxes can be modified according to the content presented.

## Abstract

All types of manuscripts should contain an abstract.

All abstracts (unstructured and structured) are limited to 250 words and should be provided on a separate page in the Manuscript file (**abstract only, without authors and affiliations**). Structured abstracts (e.g. in **original articles or short**

**communications**) should be structured into four headings: *Introduction, Materials and methods, Results, and Conclusions*.

## Keywords

Please provide 3-5 keywords, whenever possible from MeSH database, available at: <http://www.nlm.nih.gov/mesh/meshhome.html>

## Manuscript

A manuscript should be formatted as follows:

- the file should be in MS Word format (\*.doc or \*.docx format);
- the text should be double-spaced throughout including the abstract, body text, references, acknowledgments, individual tables and figures with corresponding legends;
- page format: A4;
- font: Arial, 12 pt;
- all margins: 2.5 cm;
- do NOT use any styles and formatting (no numbering for titles, no **bold** fonts);
- do NOT use Headers or Footers;
- pages and lines should be numbered throughout the Manuscript file.

Please note that the Cover letter and Title page are not included into the manuscript file.

All pages of the manuscript (except for the cover letter and title page, which are attached separately) should be within a single document.

## Introduction

In the **Introduction** section, the authors should point out new information in the manuscript, the hypothesis, and the aim of their work. The Introduction section should not contain results and conclusions.

## Materials and methods

The **Materials and methods** section should only include information that was available at the time the study was planned. All information obtained

during the study should be provided in the **Results** section. The **Materials and methods** section should be structured in the following subheadings:

- **Subjects** (if research includes human subjects), **Materials** (otherwise);
- **Methods**
- **Statistical analysis.**

In the **Subjects/Materials** section it is recommended to include the following:

- time and place of the study (the dates of the beginning and the end of the study);
- study design (case-control, cohort, diagnostic accuracy *etc.*);
- inclusion and exclusion criteria;
- relevant demographic and history details (age, gender, diagnostic criteria *etc.*);
- ethical approval and informed consent. For more details, please read *Ethical approval and informed consent* section above.

In the **Methods** section, methods, instruments (give the manufacturer's name, town and country in parentheses), and procedures should be described in sufficient detail to allow other researchers to reproduce the results. For well-established methods, only references should be provided.

Example: All tests were run on Roche Cobas C501 chemistry analyzer (Roche Diagnostics GmbH, Mannheim, Germany).

In the **Statistical analysis** section, authors should list all statistical methods used in the study and preselected level of significance (P). If possible, findings should be quantified and presented using appropriate indicators of measurement error or uncertainty (*e.g.*, confidence intervals). For more details, please read: *Simundic AM. Practical recommendations for statistical analysis and data presentation in Biochemia Medica journal. Biochem Med (Zagreb) 2012;22(1):15-23.*

At the end of this section, authors should specify the name and version of the statistical software used (with the manufacturer's name, town and country in parentheses).

## Results

State the main or most important finding first. The data presented in the tables or figures should not be repeated in the text. Graphs should be used as an alternative to tables with many entries; do not present the same data in duplicate (*e.g.*, in both graphs and tables). Exact P values should be provided for all tested differences (*e.g.*, write  $P = 0.048$  instead of  $P < 0.05$ ) rounded to three decimal places. Where appropriate, 95% confidence intervals should be provided.

For more on graphical presentation authors are referred to: *Sperandei S. The pits and falls of graphical presentation. Biochem Med (Zagreb) 2014;24(3):311–20.*

## Units of measurement

Units of measurement should be reported according to the Journal style. Complete list of acceptable units is available at the link **Abbreviations and measurement units** ([http://www.biochemia-medica.com/assets/images/upload/Guidelines\\_for\\_Authors/List\\_of\\_units\\_and\\_abbrevitions.pdf](http://www.biochemia-medica.com/assets/images/upload/Guidelines_for_Authors/List_of_units_and_abbrevitions.pdf)). *Biochemia Medica* accepts the International System of Units (SI) except for temperature (degrees Celsius), blood pressure (millimeters of mercury) and enzyme activity (U/L).

## Abbreviations and symbols

Use only standard abbreviations. Avoid abbreviations in the title of the manuscript. Always spell out abbreviations on first mention and include the abbreviation in parenthesis unless the abbreviation is a standard unit of measurement. For additional information, see the list of **Abbreviations and measurement units** ([http://www.biochemia-medica.com/assets/images/upload/Guidelines\\_for\\_Authors/List\\_of\\_units\\_and\\_abbrevitions.pdf](http://www.biochemia-medica.com/assets/images/upload/Guidelines_for_Authors/List_of_units_and_abbrevitions.pdf)).

## Discussion

Emphasize the new and important conclusion based on the study results in the context of the best available evidence. Do not repeat the data presented in the **Introduction** or **Results** section. Clearly state the limitations of the study.



## Acknowledgments

All contributors who do not meet the authorship criteria (e.g. funding; general supervision of a research group or general administrative support; writing assistance, technical editing, language editing, and proofreading) should be listed in the *Acknowledgments* section. These persons must give verbal permission to be acknowledged. Authors should provide that statement during the manuscript submission process. Financial and material support should also be acknowledged and reported in the conflict of interest disclosure during the manuscript submission process.

## References

*Biochemia Medica* endorses the San Francisco Declaration on Research Assessment (DORA) (available at <https://sfedora.org/>) and promotes the proper usage and interpretation of various citation indexes and fair article referencing. For that reason, the authors are advised to reference only original articles, avoid referencing irrelevant articles, personal communications or conference abstracts. To prevent artificial "citation boost" authors are encouraged to reduce the number of auto-citations. Authors are responsible for verifying the accuracy of the references by using an electronic bibliographic source, such as PubMed, or printed original articles. References must not refer to the retracted article, unless the authors intend to specifically address the retraction.

*Biochemia Medica* applies Vancouver referencing style. Literature citation should conform to the standards available at NLM's International Committee of Medical Journal Editors (ICMJE) Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals: Sample References available at [http://www.nlm.nih.gov/bsd/uniform\\_requirements.html](http://www.nlm.nih.gov/bsd/uniform_requirements.html). References should be numbered consecutively, using Arabic numerals in parentheses, in the order of appearance in the text and cited at the end of the sentence.

*For example:*

Prostatic carcinomas with final score <7 were considered low-intermediate grade; and, with final score >7 were considered high-grade (4).

If more than one reference at the time needs to be cited, list each reference number separated by a comma, or by a dash for a sequence of consecutive numbers. There should be no spaces between commas or dashes.

*For example:*

The specific antibody testing should minimally involve the solid-based assays which include classical ENA antigens (SS-A (Ro60), SS-B (La), Sm, RNP, Scl-70, and Jo-1) and dsDNA (6,28-31).

References cited only in tables or figures should be numbered in accordance with the sequence established by the first appearance in the text of the table or figure. Also, the authors should **NOT** include DOI numbers at the end of cited reference.

Journal titles should be abbreviated according to the style used in the NLM Catalog: Journals referenced in the NCBI Databases, posted by the NLM and available at: <http://www.ncbi.nlm.nih.gov/nlm-catalog/journals>.

The most common examples of reference citing are as follows.

### Standard journal article:

Name all authors unless there are more than six, in which case list the first six followed by *et al*. The volume number should be included, omitting the month and issue number.

*For example:*

Punglia RS, D'Amico AV, Catalona WJ, Roehl KA, Kuntz KM. Impact of age, benign prostatic hyperplasia, and cancer on prostate-specific antigen level. *Cancer*. 2006;106:1507-13.

Chen L, Wang X, Carter SA, Shen YH, Bartsch HR, Thompson RW, et al. A single nucleotide polymorphism in the matrix metalloproteinase 9 gene (-8202A/G) is associated with thoracic aortic aneu-

rysms and thoracic aortic dissection. *J Thorac Cardiovasc Surg.* 2006;131:1045-52.

*Organization as author:*

Diabetes Prevention Program Research Group. Hypertension, insulin, and proinsulin in participants with impaired glucose tolerance. *Hypertension.* 2002;40:679-86.

*Both personal authors and organization as author:*

Vallancien G, Emberton M, Harving N, van Moorseelaar RJ; Alf-One Study Group. Sexual dysfunction in 1,274 European men suffering from lower urinary tract symptoms. *J Urol.* 2003;169:2257-61.

**Article published electronically ahead of print**

Cals JW, Kotz D. Effective writing and publishing scientific papers, part X: choice of journal. *J Clin Epidemiol.* 2013 Oct 31 [cited 2013 Nov 7]. [Epub ahead of print].

**Forthcoming (formerly in-press) and preprints**

Since manuscripts in preprint databases are not peer-reviewed it is not advisable to reference them as source of information in the submitted manuscripts. Exceptions can be made if a specific manuscript in preprint database is the material of investigation for the presented study or if the authors refer to the preprint article as an example of preprints. All other types of referencing preprints as a major source of information cannot be accepted.

*For example:*

Bar DZ, Atkatsch K, Tavares U, Erdos MR, Gruenbaum Y, Collins FS. Biotinylation by antibody recognition- A novel method for proximity labeling. *BioRxiv* 069187 [Preprint]. 2016 [cited 2017 Jan 12]. Available from: <https://doi.org/10.1101/069187>

Alvarez R. Near optimal neural network estimator for spectral x-ray photon counting data with pile-up. *arXiv:1702.01006v1* [Preprint]. 2017 [cited 2017

Feb 9]. Available from: <https://arxiv.org/abs/1702.01006>

Rourke E, Hussain R, Buscombe JR, Hilson AJ. Overlying urostomy bag simulating urinary leak in a postrenal transplant MAG3 study. *Clin Nucl Med.* Forthcoming 2006 (can include date, volume and issue number if provided)

Tian D, Araki H, Stahl E, Bergelson J, Kreitman M. Signature of balancing selection in Arabidopsis. *Proc Natl Acad Sci USA.* Forthcoming 2002. (can include date, volume and issue number if provided)

**Book or handbook:**

*In English:*

Burtis CA, Ashwood ER, Burns DE, eds. *Tietz Textbook of Clinical Chemistry and Molecular Diagnostics.* 4th ed. St. Louis: Elsevier Saunders; 2006.

*In language other than English:*

Gamulin S, Marušić M, Kovač Z. *et al.*, eds. [Patofiziologija]. 5th ed. Zagreb: Medicinska naklada; 2002. (in Croatian)

**Book chapter:**

*In English:*

Meltzer PS, Kallioniemi A, Trent JM. Chromosome alterations in human solid tumors. In: Vogelstein B, Kinzler KW, eds. *The genetic basis of human cancer.* New York: McGraw-Hill; 2002. p. 93-113.

*In language other than English:*

Vrkić N. [Smjernice za laboratorijsku dijagnostiku akutnog koronarnog sindroma]. In: [Dijagnostika hitnih stanja]. Topić E, ed. Zagreb: Medicinska naklada; 2006. (in Croatian)

**Internet source:**

Dag Stat. Mackinnon A. Available from: [https://www.biostats.com.au/DAG\\_Stat/](https://www.biostats.com.au/DAG_Stat/). Accessed May 5th 2006.

Kanneganti P, Harris JD, Brophy RH, Carey JL, Lattermann C, Flanigan DC. The effect of smoking on

ligament and cartilage surgery in the knee: a systematic review. *Am J Sports Med* [Internet]. 2012 Dec [cited 2019 Feb 19];40(12):2872-8. Available from: <http://ajs.sagepub.com/content/40/12/2872>

Stockhausen L, Turale S. An explorative study of Australian nursing scholars and contemporary scholarship. *J Nurs Scholarsh* [Internet]. 2011 Mar [cited 2013 Feb 19];43:89-96. Available from: <http://search.proquest.com/docview/858241255>

## Tables

Tables with brief captions should be provided each on a separate page at the end of the document. Use only horizontal lines of a table grid. Tables should be numbered consecutively using Arabic numerals. Ensure that each table is cited in the text. Each column should have a short heading title and detailed explanation provided in a footnote. All non-standard abbreviations should be explained in table footnotes using the symbols in the following order: \*, †, ‡, §, ||, ¶, \*\*, ††, ‡‡, §§, |||, ¶¶, etc.

## Figures

Each figure and its brief caption should be provided on a separate page at the end of the document. Figures should be numbered consecutively according to the order of appearance in the text.

Technical editors will redesign or recreate all graphical elements (pictures, schematic presentations etc.) of the manuscript if they do not conform to the uniform style of the Journal.

All graphical elements and figures should be presented in black and white and/or grayscale. Decision to publish some graphical material in color is with the Journal Editors.

If, for some reason, figures cannot be inserted into the manuscript file, they can be uploaded as separate electronic files. Acceptable image file formats for print publication are: \*.jpg, \*.bmp or \*.tiff; the desired resolution is 300 dpi.

## Supplementary material

All files that cannot be included in the manuscript files (broad tables, XML codes etc.) but are important for accurate interpretation of the presented data, can be uploaded and published as a separate electronic file. All such material has to be mentioned and referenced in the manuscript text and supplementary material has to be clearly and unambiguously connected with the respective manuscript.

## Language and style

Manuscript should be written in English in understandable style and checked for correct spelling and grammar. Authors whose first language is not English are strongly advised to have their manuscript edited by a language professional or fluent English speaker before submission. Please note that this does not guarantee the acceptance of the article for publication. *Biochemia Medica* does not provide language editing service and does not have any preferences for the use of any particular service provider.

Last updated: January 2025.