

# Author Guidelines

## for Lékař a technika – Clinician and Technology

The scientific journal of the Czech Society for Biomedical Engineering and Medical Informatics and the Faculty of Biomedical Engineering, Czech Technical University in Prague

### Scope of the Journal

The mission of the journal is to foster the development in a wide range of biomedical engineering and to create a platform for exchange of information and results of scientific research in the field of biomedical engineering. The journal addresses the following topics:

- Biological signal acquisition and processing
- Biomedical instrumentation
- Medical devices
- Medical imaging systems and image processing
- Biomechanics and biomaterials
- Biomedical informatics
- Biomedical modeling and simulation
- Management and safety of medical devices

### Types of the Articles

Authors should submit **original research articles only**.

The journal does not publish other types of articles except for the articles as editorials or review articles written **by invitation only**. Without such an invitation, the manuscripts other than original research articles will be not considered for publication.

### General Submission Requirements and Process

The submitted articles must be written in English. It is the responsibility of the authors to assure a high level of English and thorough proofreading before submitting the manuscript.

CTJ prefers American English. Authors may use British English as well, but they are encouraged not to mix different styles of English together.

The authors should observe three sets of rules while preparing the manuscript:

1. The requirements and rules listed in this document.
2. The general rules for writing biomedical papers issued by the International Committee of Medical Journal Editors, updated regularly and available at <http://www.icmje.org/recommendations/>.

3. Instructions for formatting and Camera Ready article preparation according to the instructions provided in the template available at.  
<http://ventilation.fbmi.cvut.cz/wp-content/uploads/2018/08/template-EN.doc>

All articles must be submitted through the on-line journal submission system available at <https://ojs.cvut.cz/ojs/index.php/CTJ/>. Registration is needed for accessing the submission system.

### **Ethical aspects and requirements**

Clinical studies (in a broader view as described below) must be properly approved and registered; otherwise, they cannot be published in *Lékař a technika – Clinician and Technology journal (CTJ)*.

CTJ considers a study to be a clinical study when it meets the following WHO definition: “A clinical study is any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes. Interventions include but are not restricted to drugs, cells and other biological products, surgical procedures, radiologic procedures, devices, behavioral treatments, process-of-care changes, preventive care, etc.”

As interventional, CTJ considers all studies in human beings in which individuals are assigned by an investigator based on a protocol to receive specific interventions. Subjects may receive diagnostic, therapeutic or other types of interventions. The assignment of the intervention may or may not be random. The individuals are then followed and biomedical and/or health outcomes are assessed.

CTJ requires (according to the International Committee of Medical Journal Editors, ICMJE, requirements) that all clinical trials are registered in a WHO approved registry. The preferred registry is [ClinicalTrials.gov](http://ClinicalTrials.gov). More information on trial registration is at <http://www.icmje.org/about-icmje/faqs/clinical-trials-registration/> including other acceptable registries.

Please give the name of the registry and the registration number (e.g. [ClinicalTrials.gov](http://ClinicalTrials.gov), registration number NCTxxxxxxx) in the methods section of your manuscript.

Interventional studies with humans or animals must be reviewed and approved by the appropriate institutional biomedical research ethics board. This should be detailed in the first section of the methods section of your manuscript.

### **Review and Publication process**

All manuscripts submitted to CTJ are subjected to peer review. The Editors relies on evaluations by at least 2 members of the Editorial Board and outside experts in deciding whether submitted manuscripts should be accepted for publication, revised for further peer review, or rejected.

The corresponding authors will receive electronic galley proofs, with all figures and tables in place, in PDF format. Complete instructions will be provided for revision. Proofs should be reviewed carefully by all the authors and returned to CTJ within 5 days of receipt to avoid delay in publication. Only errors made during the article copyediting and typesetting should be indicated. Changes to the text, style, provided information etc. will require resubmission of the article for new peer review.

CTJ may make minor changes in order to conform to the CTJ style and layout without approval by the authors if the changes do not alter the authors' meaning or possible interpretation of the article.

A paper, which is accepted by the editor for publication and which meets the CTJ style requirements, is usually published on-line at the CTJ webpage within a week from the acceptance and it is published in a printed issue of CTJ typically within three to six months. Data for indexing are sent to SCOPUS immediately after the entire issue is released.

### **Copyright Notice**

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1. Authors retain copyright and grant the journal right of the first publication with the work simultaneously licensed under a Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>) that allows others to share the work with an acknowledgment of the work's authorship and initial publication in CTJ.
2. Authors are able to enter into separate, additional contractual arrangements for the non-exclusive distribution of the journal's published version of the work (e.g., post it to an institutional repository or publish it in a book), with an acknowledgment of its initial publication in this journal.
3. Authors are permitted and encouraged to post their work online (e.g., in institutional repositories or on their website or ResearchGate) prior to and during the submission process, as it can lead to productive exchanges.

CTJ requires that all of the content of the manuscript has been created by its respective authors or that permission to use a copyrighted material has been obtained by the authors before submitting the manuscript to CTJ. CTJ requires that authors have not used any copyrighted material illegally, as for example a picture from another journal or book, a photo, etc. It is the author's responsibility to use only materials not violating the copyright law. When in doubt, CTJ may ask the authors to supply the pertinent permission or agreement about the use of a copyrighted material.

The opinions expressed in CTJ articles are those of authors and do not necessarily reflect the views of the publishers or the Czech Society for Biomedical Engineering and Medical Informatics.

## **Indexing**

CTJ is indexed in the following international databases: SCOPUS (Elsevier), EMBASE/Excerpta Medica (Elsevier), IndexCopernicus, Bibliographia Medica Cechoslovaca, Google Scholar and others.

## **Publication fee, article processing fee and subscription**

There is currently no article processing fee. No publication fee is required as CTJ is supported by the Faculty of Biomedical Engineering, Czech Technical University in Prague.

The journal is available in a paper form and the full version is published in PDF format as well. Two ISSN numbers have been assigned to CTJ: ISSN 0301-5491 (Print) and ISSN 2336-5552 (Online). The journal is registered in the Czech Republic, act MK ČR E 5085.

As CTJ is an open access journal, the on-line version of each issue is freely available at the webpage of CTJ. As since 2008, the printed journal issues are distributed free of charge upon request.

## **Specific Requirements for Manuscript Preparation**

The rules listed below are required for initiation of the review process and they are checked during the peer review process as well. Please, use these rules during writing your manuscript.

Finally, check adherence to these rules before submitting your manuscript to CTJ.

Please, be sure, that:

- ❑ If the manuscript comprises a research that involves human subjects, the approval of the study by an Institutional Review Board/Ethical Committee was granted and this is stated (with details) at the beginning of “Methods” section. Furthermore, the study was registered in one of the ICMJE approved registries and the registration number and name of the registry are stated in the manuscript.
- ❑ If the manuscript comprises research that involves animal subjects, the approval of the study by an Institutional Review Board/Ethical Committee was granted and this is stated (with details) at the beginning of “Methods” section.
- ❑ All content of the manuscript has been created by its authors or a permission to use a copyrighted material has been obtained by the authors prior the manuscript submission to CTJ. The authors have not used any copyrighted material illegally, as for example a picture from another journal or book, a photo, a portion of text, table etc. It is the author’s responsibility to use only materials not violating the copyright law.
- ❑ The manuscript consists of the following parts indicated by the following headings: Introduction, Methods, Results, Discussion, Conclusion, (Acknowledgment,) References.
- ❑ The abstract is a concise text comprising all necessary information about the manuscript content including the main ideas from introduction, description of methods, main results, (discussion when it is appropriate), and conclusion.

- ❑ The abstract is written as a single paragraph.
- ❑ The abstract does not contain reference(s). Especially, numbered reference(s) as e.g. “[1]” are not allowed. If—very exceptionally—a reference in the abstract is vital, the full citation should be provided within the text of the abstract directly at the place, where the reference is mentioned.
- ❑ The authors have checked thoroughly the “References” section. Especially, spelling of the names of the authors and titles of their publications. The bibliographic information provided is complete and no data item is missing. The references strictly follow the Vancouver style (note: this is the preferred style by ICMJE and databases including Google Scholar are able to generate citations in this format).
- ❑ Only articles published in journals that may be easily found in the databases like Scopus, ISI Web of Science, etc. are to be included in the “References”. In exceptional cases, when it is really necessary authors may cite another publication source, but enough details must be provided so that the publication might be identified and possibly found.
- ❑ If an article the authors cited in “References” was published in a scientific journal and the same article is also available at a webpage, the full citation of the article from a journal is provided. Never cite the web page in this case.
- ❑ References in the text are numbered continuously starting from [1] in the order as they appear in the manuscript. The list of references is organized in the same order starting with [1].
- ❑ All the references listed in the “References” section are mentioned in the main text of the manuscript accompanied with “[X]” notation.
- ❑ The reference symbols [X] are placed inside the sentences before the full stops, not after the sentence. E.g., correct is: ... around 5 mmol/L [5].
- ❑ When two or more references are cited at the same place, only one “[...]” symbol is provided, e.g. [1, 5, 6–9].
- ❑ All the decimal points in English are really point (e.g., 3.14). Other marks used in some languages (e.g., 3,14 in Czech) are not acceptable. When creating the manuscript, the authors must unify usage of decimal point not only in the text, but also in tables, graphs and pictures, even though the local setting of a spreadsheet or statistical program used provides the outputs with a different decimal symbol than point.
- ❑ When mathematical equations are used, they are created using the mathematical equation editor (e.g. Equation Editor in MS Word) and they are not inserted as a picture. A mathematical equation editor is a standard part of MS Word; if you MS Word was installed without an equation editor, you may install it any time later.
- ❑ Italic and bold are used only when really necessary. Italic is typically used for Latin expressions (e.g., “*in vitro*”, “*arteria femoralis*”, but not in “femoral artery”).
- ❑ The hyphen (-), en-dash (–) and em-dash (—) are distinguished and used properly. Hyphen connects words together (rock-forming minerals); en-dash is used as a negative mark (–1) or when expressing a range (10–12 V); em-dash is used in sentences—like here—and is used without spaces around it.
- ❑ High-resolution high-quality pictures, graphs and illustrations were created as separate individual files in PNG, TIFF, GIF or JPG format first. All the figures must be submitted as individual files with the manuscript. No painting, drawing, labels or marks are allowed in the Word (DOC or DOCX) file. The final appearance of the figures must be submitted as separate files.

- ❑ Only the formerly described PNG, TIFF, GIF or JPG files were included into the manuscript template as figures and no additional changes (as labels, marks, etc.) were made using the text editor in the DOC or DOCX manuscript file.
- ❑ All photos, graphs, paintings, schemes etc. are denoted as “Fig. X:” and they are numbered from “Fig. 1:” in the order as they appear in the manuscript. No other captions as “Graph 1”, “Photo 1”, etc. are used.
- ❑ Captions for Figures are provided under the respective graphical object in the form of “Fig. 1: Description of the figure is provided here.” Use period at the end of the caption.
- ❑ If a figure is reprinted from another source or modified from such a source, the information must be provided at the end of the caption as a separate sentence (e.g. “Reprinted from [X], with permission.”); otherwise, the figures must be original work of the authors only.
- ❑ All the figures present in the manuscript are mentioned in the main text of the manuscript and the annotation “Fig. X” (always with capital F) is provided at the appropriate place.
- ❑ All tables are denoted as “Table X:” and they are numbered from “Table 1:” in the order as they appear in the manuscript.
- ❑ Description of the tables is provided above the respective tables in the form of “Table 1: Description of the table is provided here.” Use period at the end of the caption. Explanation of symbols or abbreviations used in the table may be provided directly below the table.
- ❑ All the tables present in the manuscript are mentioned in the main text of the manuscript and the notation “Table X” is provided at the right place.
- ❑ Contacts to the corresponding author are present at the very end of the article in the form required according to the manuscript template. No details are omitted and no extra information or detail is added.
- ❑ The format of the manuscript fits with the template of the Journal and is written according to the Instructions for authors.