

## INFORMATION FOR AUTHORS

### GENERAL PROVISIONS

«Problems of Radiation Medicine and Radiobiology» is a yearly-published Collection of scientific papers. Peer-reviewed articles are published, which are the completed works containing new results of theoretical and experimental research, or are reviews of the current state and current issues in radiation medicine and radiobiology, and are of interest to researchers, physicians, specialists in radiation hygiene, epidemiology, clinical radiobiology, experimental radiobiology, radiation endocrinology, hematology, oncology, radiology, teachers, graduate students and students of higher education.

#### Topics of publications:

- > study of the state of health of persons affected by the Chernobyl disaster and other nuclear accidents, who have had or are in contact with sources of ionizing radiation in professional activities or during medical procedures;
- > assessment of medical and demographic consequences of radiation and nuclear accidents;
- > dosimetric studies, including retrospective ones;
- > medical and biophysical support of works on post-accident facilities of the nuclear fuel complex;
- > study of the mechanisms of direct and long-term effects of ionizing and non-ionizing radiation on humans and animals, the formation of long-term radiation effects;
- > radiation pathology and radiation pathomorphosis of diseases;
- > social and hygienic research and preventive measures aimed at protecting the health of the population affected by the Chernobyl accident and the population of the monitoring zones of nuclear power plants;
- > radiation hygiene and radiation safety.

By the decision of the Certification Board of the Ministry of Education and Science of Ukraine the collection of scientific works «Problems of Radiation Medicine and Radiobiology» is included in the List of scientific professional publications of Ukraine (category A), which may publish the results of dissertations in the field of knowledge: biological sciences (order of the Ministry of Education and Science of Ukraine

dated November 7, 2018 № 1218); medical sciences (order of the Ministry of Education and Science of Ukraine dated 18.12.2018 № 1412), specialties: 91 – Biology, 222 – Medicine.

Certificate of state registration of the print media: KV № 20891-10691 PR dated 31.07.2014

Frequency of publishing – once a year.

### MANUSCRIPT SUBMISSION

For the review of an article by editorial staff the following should be mailed by post or submitted in person:

- 1) manuscript;
- 2) information about all authors with the surname, name and patronymic, scientific degree, academic rank, position and place of work, ORCID iD;
- 3) expert opinion on possibility of open publication of the paper;
- 4) accompanying letter of request from the organization where the work was performed (or the author's letter);
- 5) in the electronic form are added:
  - > electronic versions of the article, the name of the file must be indicated according to the surname of the first author;
  - > information about the authors;
  - > figures in a graphic format.

Electronic versions of the article should be sent by e-mail to the editor's address: [rad\\_problems@ukr.net](mailto:rad_problems@ukr.net).

The volume of the original paper should not exceed 10–12 pages, the review one – 15–20 pages. A larger volume of papers with original research is allowed individually, according to the decision of editorial board.

### PEER REVIEW

All papers are subject to obligatory review on the profile of scientific research by independent experts i.e. specialists in the relevant field of science (the order of reviewing the articles is set forth on the website: <http://www.radiationproblems.org.ua/poryadok.html>).

A review is conducted privately for both author(s) and reviewers. Manuscript is sent to reviewers without specifying the names of the author(s) and institution(s).

Editorial board informs authors about the review results by e-mail.

In the absence of meaningful comments of reviewer the paper is accepted for further work.

If amendment of manuscript is required according to the reviewer's comments, the editors return manuscript and review statement to the authors for correction or reasoned response to reviewers. Manuscript rewritten by authors is repeatedly sent to reviewer and in case of no repeated comments the paper is accepted for further work.

If the paper is unacceptable for publication in reviewer's opinion the editorial board decides to reject it and informs the authors.

Final decision on whether the paper is acceptable for publication is made by the editorial board.

No manuscripts will be returned.

The originals of reviews are kept within one year upon publication.

### SPECIFICATION OF REQUIREMENTS TO THE TEXT OF A PAPER

The submitted papers should be typed in MS Word for Windows software (font Times New Roman 12, spacing 1.5, paper size A4 (210 × 297 mm) page margins at all sides 2 cm, numbered pages). If the MS Word feature «Review» was used, then before saving the file one should cancel the «Review» function and then use the function «Accept all changes».

Spaces and tabs are not allowed when formatting paragraphs and headings.

Only a dash is used as a punctuation mark. Only dashes are placed between numbers in digital form and should not be spaced from numbers.

The signs #, %, ‰, the symbols of mathematical operations and symbols ( $\pm$ , ?, :, =, >, <,  $\geq$ ,  $\leq$ , etc.) should be separated from numbers by a continuous space.

All designations and denominations of units of physical values must be submitted in accordance with the International System of Units (SI). If the research was carried out using the devices that give values in other units, the latter should be transferred to the SI system by submitting the non-system units in round brackets.

Terms are to be presented in accordance with the terms and concepts defined in the State Hygiene Regulations «Norms of Radiation Safety of Ukraine (NRBU-97)», international anatomical and histological nomenclature, and rules of the genetic nomenclature; biochemical terms, abbreviations, symbols are to

be given with taking into account the rules of their use, recommended by the Commission on biochemical nomenclature of the International Biochemical Union; the names of diseases – according to the International Classification of Diseases (10<sup>th</sup> version); names of pharmacologic drugs are to be stated according to the International Non-Patent Names (INN).

Abbreviations (capitalized only) are included in the text only after their first mention with full decryption. Data presented in the tables should not duplicate data of the figures and text of the paper, and vice versa.

Original articles should conform to the IMRAD format «Introduction, Methods, Results and Discussion» and contain the following clearly separated sections: 1) introduction; 2) objective of the study; 3) materials and methods; 4) results and their discussion; 5) conclusions; 7) information on sources of research funding; 8) expression of gratitude; 9) information on conflicts of interest; 10) references. Review articles can be unstructured or divided into sections that have thematic subheadings.

**Sequence of manuscript components should be the following:**

- 1) initials and surnames of authors
- 2) full official name of each institution where the work was performed, postal address
- 3) paper title
- 4) abstract
- 5) keywords: from 5 to 10 words or wordgroups relevant to the paper content
- 6) paper text
- 7) references.

The paper title is to be as short as possible, conclusive with no acronyms.

No hyphenation in headings of all levels and in table headings is allowed.

If authors have different affiliations then each surname is to be marked at the end with a superscript figure indicating the respective affiliation. The corresponding author should be marked with an asterisk. The corresponding author should state clearly if his/her e-mail address could be shown in a published paper.

Paper submitted in English is to mandatorily include the abstracts in two languages.

The surname, first name, patronymic, post and e-mail address, phone numbers (office, home or cell) of the corresponding author are to be denoted on the last page.

**Abstract** of the original paper (up to 250 words) should be structured in this way:

- a) the objective of the study;

- b) materials and methods;
- c) results;
- d) conclusions.

Annotations of the review articles should be unstructured. Abbreviations are not allowed, except for commonly used ones.

### Text of the article

Article should be thoroughly edited and verified by the authors. Presentation of the material should be clear, without long introductions and repetitions.

Authors are fully responsible for the content and reliability of data in the article.

**Introduction.** Substantiation of the conducted study. The problem statement in its general form and its connection with important scientific or practical tasks should be briefly highlighted along with analysis of recent research and publications in which the solution to this problem was initiated and on which the author refers, the allocation of previously unsettled parts of the general problem to which this article is devoted.

**Objective** of the paper/study (statement of the task). Objective of the study, or the hypothesis that is being tested are to be briefly and clearly formulated.

**Materials and methods.** Description of the research design and data analysis is to be provided in concise but clear way needed so that other researchers can reproduce the research results. Here the reference is made to commonly used methods, a detailed presentation of already published, but still not well-known methods are described briefly with a link to, description of the new and substantially modified methods is stated with substantiation of their application. Detailed description is required for the new methods only. The names of machines, materials, reagents, and manufactures (companies) should be submitted without translation.

This section should clearly and in detail describe how patients were selected for observations or animals for experiments (including control groups) with selection and exclusion criteria statement.

In experimental studies the species, gender and number of animals, methods of anesthesia during manipulation or sampling of them, materials for laboratory research, methods of euthanasia of animals according to the European Convention for the Protection of Vertebrate Animals from 1986 ([http://zakon5.rada.gov.ua/laws/show/994\\_137](http://zakon5.rada.gov.ua/laws/show/994_137)) and the «Procedure for conducting scientific experiments and procedures on animals at scientific institutions» (approved by Order of the Ministry of Education and

Science, Youth and Sports of Ukraine 01.03.2012 # 249) (<http://zakon.rada.gov.ua/laws/show/z0416-12>).

Clinical trials should be conducted in accordance with the Good Clinical Practice standards (<https://www.ema.europa.eu/en/ich-e6-r2-good-clinical-practice>; [https://www.who.int/medicines/areas/quality\\_safety/safety\\_efficacy/gcp1.pdf](https://www.who.int/medicines/areas/quality_safety/safety_efficacy/gcp1.pdf)) and the principles of the Helsinki Declaration of the World Health Association «Ethical Principles for Medical Research with Human Involvement as an Object of Research» ([https://zakon.rada.gov.ua/laws/show/990\\_005](https://zakon.rada.gov.ua/laws/show/990_005)). Participants should be familiar with objective and main provisions of the study, after which they must sign a written consent to participate.

Authors should give details of the procedures described in protocol of the study and indicate the approval of study protocol by the Medical Ethics Committee.

At the end of the section «Materials and Methods» there is a subdivision «Statistical data processing», which specifies what methods of data processing the author(s) used. When describing the research structure and statistical methods, it is necessary to specify which statistical package (computer software) available to the average user was applied in statistical processing of the results.

Wherever possible, it is recommended that standard statistical techniques be used, with reference to familiar manuals and textbooks. For non-traditional or any new statistical methods the reference should be made, in which a detailed description of the applicable mathematical methods and algorithms is published.

**Results and discussion** should include an outline of the main research material with a full substantiation of scientific results obtained.

**Results** should be represented in a logical sequence in the text, in tables and figures. The text does not need to repeat the table and figure data. Only their comparison is required. Summarizing quantitative data it is necessary to indicate not only relative (for example, percent), but also their absolute values, and also indicate which statistical methods have been applied for their analysis.

**Discussion.** Contains only the interpretation of results, but not their repetition. It is necessary to highlight new and important aspects of study results, analyze any possible mechanisms or interpretation of these data, if possible, compare them with data of other researchers. Discussion may include the well-grounded recommendations for practice and possible perspectives for applying the results in future studies.

**Conclusions.** Results of solving the problem indicated in the title and purpose of the paper are to be stated here.

**Funding.** All sources of research funding should be stated, including direct and indirect financial support (provision of equipment/materials, other types of support). The names of the organizations that funded the research must be fully specified.

**Acknowledgements.** The persons, institutions, organizations that contributed to the research and assisted in the work on the article can be stated in this section.

**Conflict of interests.** A real or potential conflict of interest should be stated. If there is no conflict of interest, it should be written that «the author declares no conflict of interest».

## ILLUSTRATIONS

Figures should be clear, photos are to be rich in contrast. Figures should be placed in the body text, names of pictures and descriptions should be submitted under the figures. All curves, letters, numbers and other symbols on figures should be described there. Links to the main text are permitted to avoid repetition and misreading. The magnification and staining should be specified in descriptions of photomicrographs.

Figures (diagrams, graphs, charts, pictures) are to be submitted either in black and white or in color, the diagrams – made as MS Word charts or in MS Excel format. They should contain all the necessary notation of coordinate axes, curves, and other details. All lines, curves, symbols denoting the axes should be clearly depicted (curved line being thicker than coordinate axes). Pictures with rendering and photos should be saved in TIFF or JPEG format. If the figures are composed of several elements, the latter should be grouped together. All figures should be submitted for editing without additional reference to the author (the separate MS Excel image files should be sent to the editor if necessary).

## TABLES

Tables should be clear having the name and serial number and containing necessary data in a compressed style. The dimensions and form of data presentation ( $M \pm m$ ;  $M \pm SD$ ;  $M_t$ ;  $M_o$ ; percentile, etc.) are to be specified. All figures, totals, and percentages in tables should be checked thoroughly and comply to the text content. Each table must be referenced in the

text. All explanations including expanding of abbreviations are to be given in the notes.

**Formulas/equations** should be formulated in Equation Editor – Math Type labeled/enumerated in parentheses on the right. The long equations can be written in several lines. Symbols in mathematical formulas should be formatted in italic style, as uppercase and lowercase letters which hardly differ in their writing:  $P$  and  $p$ ,  $C$  and  $c$ ,  $K$  and  $k$ , etc.

## REFERENCES

Preference should be given to publications in the recent years. Sources of literature are to be placed in order of mentioning in the text. If the cited article has a DOI, it should be specified it at the end of the description. If there is no DOI for the cited source but is hosted on the Internet, it is advisable to include its URL in the description.

References in the text are denoted as Arabic numerals in square brackets. References to unpublished works are not permitted. When describing electronic resources of remote access (from the Internet) it is necessary to specify the date of access to the document in parentheses after the electronic address.

When generating the References list the Vancouver style should be used, been formalized by the International Committee of Medical Journal Editors in the «Citing Medicine» document and adopted by the US National Library of Medicine database MEDLINE/PubMed. More detailed information on preparation of References in accordance with this style can be found at: [https://www.nlm.nih.gov/bsd/uniform\\_requirements.html](https://www.nlm.nih.gov/bsd/uniform_requirements.html) and <http://www.nlm.nih.gov/citingmedicine>. Titles of periodicals should be abbreviated according to the style adopted in Index Medicus. Abbreviated titles of the journals can be revised (i.e. decoded or checked a correct reduction) on the respective journal websites or PubMed website: <https://www.ncbi.nlm.nih.gov/nlmcatalog/journals..>

## ETHICAL ISSUES

Ethical issues of scientific publications are described in detail on the site of the Collection (<http://www.radiationproblems.org.ua/etika.html>)

Authors who submit the manuscript to a Collection of Scientific Papers for review ensure that all ethical standards of publication and ethical norms are met.

## Authorship

All persons designated as «authors» have to meet the criteria of this concept. Participation in the work of

each participant should be sufficient to take responsibility for its content. The right of authorship is based on significant contributions to the conception and design of the study or to the analysis and interpretation of data, preparation of the text of paper or making fundamental changes, final approval of the version submitted for publication. Participation only in providing the funding or selection of material for the paper does not justify the inclusion to the authors' group. General management of the research team is also not considered sufficient for an authorship. Sequence in which the authors are listed is defined by their joint decision. All team members who do not meet the criteria of authorship should be listed with their consent in the «Acknowledgements» section. Editors have a right to enquire the authors for contribution of each of them in the paper writing and this information may be published.

### **Conflict of interests**

A conflict of interest regarding a particular manuscript occurs when one of the participants of the review or publication process i.e. author, reviewer or editor has a commitment/obligation which could affect his or her opinion (even if it's absent) through scientific competition, and intellectual preferences, personal or financial relationships. All persons and organizations that promote the implementation of research (financial support, financial or other contribution to the collection, analysis and interpretation of data) should be referred to in the manuscript. Participants of the review and publication process must disclose all conflicts of interest. Authors should indicate the names of those to whom in their opinion the manuscript should not be sent for reviewing usually due to the professional conflict of interests. Authors when submitting a manuscript are responsible for the disclosure of their financial and other conflicts of interest that can affect the work. Reviewers must notify the editorial board of any conflicts of interest that may affect their opinion about the manuscript, and they have to refuse from reviewing of a specific paper if consider it appropriate. In turn, the editorial board should be able to evaluate the objectivity of the reviews and decide whether or not it is necessary to refuse from the help of the reviewer.

Editors may use information provided in the reports on the presence of conflicts of interests and financial interest as a basis for making the editorial decisions. Editors who make decisions about manuscripts must have no personal, professional or financial inte-

rest/participation in any matter they can be addressed.

### **Compliance with patient rights and confidentiality**

Patients have the right to maintain confidentiality that cannot be disclosed without their consent. Information that allows the identification of a person, including patient names, initials, hospital numbers and medical records, should not be published in the form of written descriptions, photographs and pedigrees unless this information is of high scientific value or if the patient (or the parent or guardian) will provide a written consent for the publication. Authors must inform the patient whether there is likely that the material allowing to ascertain identity of the person will be available online after publication. Authors must provide to editorial board a written informed consent of the patient to disseminate information and state this information in the article.

### **Protection of humans and animals within scientific research**

If there is a description of experiments involving human/people in the paper then authors should specify whether that was carried out in accordance with the ethical standards of a committee responsible for experiments involving human/people (a national one or within the staff of institution) and the Helsinki Declaration of 1975 and its revised version of 2000. In doubtful cases the authors must submit the substantiation of study approaches and evidence that the advisory council of the institution had approved the research aspects that are questionable. In describing experiments involving animals, authors should indicate whether the requirements of the «Rules for carrying out experiments using experimental animals» and the rules of the institution regarding maintenance and use of laboratory animals have been complied with.

### **Publication of negative results**

Many studies showing negative results are in fact incomplete/inconclusive. Possibility to publish the inconclusive research results is reviewed by editorial board in a special manner, as such papers often are of no biomedical value.

### **Multiple publications**

Editorial board does not accept for reviewing the manuscripts submitted simultaneously for publication to other journals, as well as works that are foremost already published as articles or are a part of another paper, pro-

vided or accepted for publication in other printed source or electronic media. This does not preclude the reviewing of articles not accepted for publication by another journal, or a complete description provided after the publication of preliminary results, i.e. abstracts or poster presentations at scientific conferences.

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Editors reserve the right for literary and scientific editing of papers.

Articles not meeting the specified requirements will be neither reviewed nor accepted.

Authors are sent the author's copies of Collection of Papers.