***REPUBLIC OF CROATIA***

***RUÐER BOŠKOVIĆ INSTITUT***

***Public Scientific Institute of the Republic of Croatia***

ORDINANCE ON ADDITIONAL SELECTION CRITERIA FOR ELECTION TO SCIENTIFIC POSITIONS

Zagreb, November 2022

Under Article 34, Paragraph 3, Item 3 of the Law on Scientific Activity and Higher Education (Official Gazette, number: 119/2022), the Scientific Council of the Ruđer Bošković Institute, at its 96th session held on 23 November 2022, has passed

**ORDINANCE**

**ON ADDITIONAL CRITERIA FOR THE ELECTION TO SCIENTIFIC POSITIONS**

1. **GENERAL PROVISIONS**

**The subject of the processing**

**Article 1**

(1) This Regulation lays down additional criteria for election and re-election to scientific workplaces at the Ruđer Bošković Institute (hereinafter: The Institute).

(2) A person who fulfils the general conditions for election for a scientific position prescribed by the Act on Scientific Activity and Higher Education (hereinafter: the Act), the national criteria for election for a scientific teaching position, an artistic teaching position, a scientific and a teaching position at a higher education institution and scientific institution (hereinafter: national higher education scientific and artistic criteria) and other criteria established by this Regulation can be employed.

(3) The procedure for the election of a scientist to a vacant position, the election for a higher position and the procedure for re-election to the position of scientist shall be governed by law and the Statutes of the Institute.

**The meaning of the expressions**

**Article 2**

1. For this Ordinance, certain expressions shall have the following meanings:

* *Scientific paper* means an original or reviewed scientific article published or accepted for publication in an international peer-reviewed scientific journal and represented in the WoSCC database (Web of Science Core Collection).

Abstracts, extended abstracts, conference announcements, technical papers and studies do not count as scientific papers.

In deviation from what is stated in the explanation of the term scientific paper at this point, in the scientific field of "Technical Sciences" a scientific paper is also considered to be a paper published in a scientific journal represented in the Scopus database, a published paper in a scientific journal represented in other bibliographic databases outside WoSCC and Scopus that can be added to the candidate selection area, and published and presented a scientific paper from an international conference/poster.

A new paper that has been accepted for publication and has an active DOI (Digital Object Identifier) tag issued by the journal publisher can also be listed as a qualifying paper.

* *The author of a scientific paper* is the person whose name is explicitly mentioned next to the title of the work. Exceptionally, in the case of collaborative works, if only the name of the consortium (project group) is listed next to the title or only the first author is listed as a representative of the consortium, any member of the consortium whose name is listed separately in the paper may be considered the author.
* *The lead author* of the scientific paper is:

- for the election in the field of "Natural Sciences", area physics, chemistry and biology: the first author and corresponding author.

- for the election in the field of "Natural Sciences", field of Interdisciplinary Natural Sciences: the first author, the author who has the same contribution as the first author, which must be indicated in the paper, and the corresponding author.

- for election in the fields of "Biomedicine and Health" and "Biotechnical Sciences": first, last or corresponding author (if different from first or last author).

- for the election in the field of "Technical Science": the problem bearer or the author who has contributed most to the solution of the issue at hand.

The lead authors are determined by the Expert Committee based on the applicant's submission.

A paper can have a maximum of two lead authors.

* *The WoSCC (Web of Science Core Collection*) database is a literature and citation database that covers all areas of science and combines several citation indexes, taking into account three citation indexes for the purposes of this Regulation, namely: SCI-EXPANDED (Science Citation Indexes Expanded), SSCI (Social Sciences Citation Indexes) and A&HCI (Arts & Humanities Citation Indexes).
* *The Journal Resonance Impact Factor (IF)* for a given year gives the ratio of the number of citations in the year under consideration that all papers published in a given scientific journal in the last two years received and the total number of papers published in the same journal in the previous two years. Data on journal resonance impact factors are available in the database JCR (InCites Journal Citation Reports) or SJR (SCImago Journal Rank Indicator - for the scientific field of "Technical Sciences").
* *A journal with an echo factor above the median of the journal's classification range* indicates a journal that belongs to the first or second quartile (Q1 or Q2) according to the level of its own echo factor within the field to which it is assigned, according to the data available in the JCR database (Journal Citation Reports) or SJR (SCImago Journal Rank Indicator - for the scientific field of "Technical Sciences").
* *A top journal* indicates a journal with a response factor in the first quartile (Q1).
* *A particularly high-quality paper* is considered to be a scientific work published in the most renowned journals with a high resonance impact factor, such as Nature or Science, as well as a scientific paper with high citations if such a paper also fulfils the conditions prescribed for exceptionally high-quality paper by the Ordinance onConditions for Election to Scientific Professions (paper in a journal that belongs to the top 10% of the respective subject category; paper in a journal that belongs in Q1).
* *The Hirsch Index (h-index)* is an indicator of the discernible influence of the applicant's scientific paper, determined by the number of published papers and their citations according to information from the WoSCC database.
* *The field of science* "Natural Sciences", "Biomedicine and Health", "Technical Sciences" and "Biotechnical Sciences" comprises the fields of science determined by the Ordinance on Scientific and Artistic Areas, Fields and Branches (Official Gazette). Number: 118/2009, 82/2012, 32/2013, 34/2016 and 56/2022).
* The *Expert Committee* means the committee that assesses whether the applicants who have applied for the vacancy, i.e. scientists who are in the selection process for a higher position or in the re-election process, meet the selection criteria for the position.
* *The Applicant* means a candidate who has applied for the advertised competition for election of a scientist for a vacant position and a scientist for whom the procedure for election to a higher post of scientist or the procedure for re-election to a position of scientist has been completed under the Act initiated.

1. Expressions used in this Ordinance which have a gender-specific meaning shall be used neutrally and shall refer equally to men and women.

**Basic principle**

**Article 3**

The basic principle by which the work of scientists at the Institute is evaluated is their contribution to the fulfilment of the Institute's mission: scientific excellence and application of knowledge for the benefit and development of society.

**II. CRITERIA FOR THE ELECTION TO SCIENTIFIC POSITIONS**

**Indicators on which additional selection criteria are based**

**Article 4**

The indicators on which the additional selection criteria for scientific positions are based are as follows:

(A) Total number of scientific papers

(B) Quality of scientific papers

(C) Scientific reputation of the applicant

(D) Organisational skills, ability to conduct scientific research and contribute to the development of science

(E) Contribution to innovation, knowledge transfers to the economy and commercialisation of the results of scientific work.

(F) Management of scientific research projects

(G) Competence to fulfil the tasks of the specific workplace.

*(A) Total number of scientific papers*

**Article 5**

(1) The total number of scientific papers required for election to a particular scientific position is prescribed in Articles 15-18 of this Ordinance, applying mutatis mutandis the provisions of Paragraphs 2-7 of this Article and qualitative criteria.

(2) If the nature of the field research allows it to be carried out for limited time, the Expert Committee in the fields of Biology and Interdisciplinary Natural Sciences (Marine Sciences and Environmental Sciences) may propose that the number of papers required for election to the scientific position of research assistant be reduced by a maximum of two papers.

(3) The number of applicant’s papers published in the same journal must not exceed 50 % of the scientific papers required for election to a specific scientific position unless it is a journal with a resonance impact factor in the first or second quartile (Q1 and Q2).

(4) A scientific paper required for election to a specific position in the scientific fields of "Biomedicine and Health" and "Biotechnical Sciences" can be replaced by a recognised patent for an invention, whereby IF=2x median of IF of the subject field and field of science is added to the international patent, and IF=median of IF of the subject field and field of science is added to the Croatian patent.

(5) In order to be selected for a specific position in the field of "Technical Sciences", the applicant must have the number of equivalent scientific papers prescribed in Articles 15-18 of this Ordinance, whereby the equivalent value of the applicant's paper is being calculated under the provisions of Paragraph 7 of this Article.

(6) The equivalent value of an individual work of the applicant for a position in the field of "Technical Sciences" shall be calculated as follows:

- up to four authors: 100%

- five authors: 75%

- six authors: 50%

- seven authors: 25%

- more than 7 authors: 100/n%, where n is the number of authors.

(7) When being selected for a position in the scientific field of "Technical Sciences", the principle of quality precedence applies: in the case where one scientific paper has been completed more than the specified number of papers required for selection in category A, it is not necessary to meet the scoring criteria based on categories B and C. Likewise, if the condition from category A has been met, and one paper has been completed in category B more than the required number of papers, it is not necessary to fulfil the requirement from category C.

*(B) Quality of scientific papers*

**Article 6**

(1) The quality of scientific papers is assessed based on the status of the journal in which the paper was published, in terms of the impact factor of the journal and the quartile in which the journal is classified, its citations and the proven inclusion of research results in global databases.

(2) The quality of citations is assessed by the total citations of applicants, average citations, high and/or long-standing citations of individual papers and the H-index.

(3) Representation (indexing) of journals in the databases prescribed by this Ordinance, impact factors (IF, Impact Factor or SJR, SCImago Journal Rank Indicator) of scientific journals, citations of papers and other bibliometric data prescribed by the provisions of this Ordinance shall be determined by the libraries of public higher education and scientific institutions under the available databases and shall issue certificates to the applicant to that effect.

(4) The classification of scientific journals into quartiles according to impact factor score (Q1, Q2, Q3, Q4) is done according to the journal citation report (JCR (Journal Citation Reports)) or SJR (SCImago Journal Rank Indicator - for the scientific field of " Technical Sciences") in the year of publication of the paper or according to the last published report up to the date of submission of the application for the application/request for election to a higher position / initiation of the procedure for re-election to the position of scientist, whichever is more favourable for the applicant and the most favourable subject category for the applicant. Papers published in journals outside the subject category of the field in which the applicant is selected, are evaluated according to the quartile that the journal has in its category. If a journal indexed in the WoSCC database (or Scopus - for the scientific field of"Technical Sciences") has not been assigned an impact factor and is not classified in a certain quartile, it will be considered to be classified in the fourth quartile (Q4).

(5) In the scientific field of "Technical Sciences", scientific papers are categorized as follows:

- category A of papers: scientific papers published in journals indexed in the WoSCC and/or Scopus database;

- category B of papers: scientific papers published in scientific journals that are represented in other bibliographic databases, outside of the databases listed under A, and which can be added to the field of choice of applicants;

- category C of papers: published and exhibited scientific papers from international conferences/posters.

(6) In the field of "Natural Sciences", at least two-thirds of the papers required for election must be published in journals whose impact factor is in the first three quartiles (Q1, Q2 and Q3).

(7) The total number of scientific papers required for election to a specific scientific position in the field of "Natural Sciences" may be reduced by a maximum of one-third by multiplying individual papers of particularly high -quality by the quality factor and applying the quantitative criteria from Articles 15 to 18 of this Ordinance to the total number of papers thus obtained. Particularly high- quality papers shall be evaluated with a factor of 1.5 or 2.00 proposed by the Expert Committee for the election of the position and confirmed by the Science Council. The applicant must be the lead author of exceptionally high-quality work from this section.

*(C) Scientific reputation of the applicant*

**Article 7**

The applicant's scientific reputation is assessed by the Expert Committee, which evaluates the applicant's contribution to the overall scientific body of work, in particular to selected scientific papers and papers in which the applicant is the lead author or one of the lead authors, and thus assesses his or her independence in conducting scientific questions (peer review) and evaluating the academic echo of published work in the world science, as well as based on:

1. personal contribution in selected papers from the attached list of papers and the quality of papers in which the applicant is the lead author or one of the lead authors;

2. held invited lectures at international scientific conferences;

3. membership on the editorial board of renowned scientific journals, especially international ones;

4. activity as a reviewer in scientific journals, especially international ones;

5. participation in international projects;

6. visits to internationally renowned institutions as a visiting professor or visiting scientist;

7. membership in academies of science;

8. received awards for scientific and research work, especially a) state awards of the Republic of Croatia, b) HAZU awards, c) foreign awards, d) Institute awards and awards of similar significance as under a), b) and c).

9. membership in the international advisory board of prestigious international scientific conferences.

*(D) Organizational skills, ability to conduct scientific research and contribution to the development of science*

**Article 8**

*Organizational skills, ability to conduct scientific research and contribution to the development of science* are proven by:

1. by managing a project or program, including managing a project during part of its duration and a project that has not yet been completed at the time of the applicant's application for the position and/or conducting research within the framework of international cooperation;

2. by successfully guiding younger staff members through joint scientific work leading to publications; by supervising diploma and/or master's theses and/or doctoral dissertations and successfully supervising senior assistants;

3. by introducing new issues, developing and/or introducing new methods and techniques into the scientific work at the home institution;

4. by holding the position of director general, assistant director, head of the institute, head of the joint unit for scientific support, president of the Scientific Council, president of the scientific council of the profession, head of the laboratory or membership in the administrative councils of scientific research institutes;

5. by performing advisory and other duties in the home institution;

6. by contributing to the improvement and development of the scientific infrastructure (rooms, equipment, etc.) of the home institution or other forms of investment in science at the home institution, resulting from cooperation with domestic or foreign institutions;

7. by holding classes at the undergraduate and postgraduate levels;

8. by performing a function in scientific and professional societies at home and abroad as well as through advisory or expert activities in governmental and international bodies;

9. by organizing international scientific conferences and serving in the scientific committees of international conferences;

10. by the writing of textbooks, scientific books, scientific monographs and authorship of reviews, professional, educational and popular articles, etc.;

11. by taking part in activities to promote and popularise science, organise and conduct public presentations, lectures and workshops to popularise science and disseminate scientific knowledge.

*(E) Contribution to inventiveness, knowledge transfers to the economy and commercialisation of the results of scientific work*

**Article 9**

The contribution in this area is proven:

- by the status of the inventor of a recognised patent for the protection of inventions;

- by generating significant revenue for the home institution through collaboration with industry, projects and commercialisation of patents or other forms of intellectual property. The above does not include revenue generated through the provision of services on the institution's equipment. The above contribution is equated to the implementation of internationally evaluated projects or (partial) research in the context of (large-scale) international collaborations.

(F) *Management of scientific research projects*

**Article 10**

1. The implementation of a scientific research project under this Article of the Ordinance requires that the applicant has been the leader of an internationally peer-reviewed approved scientific research project for at least 18 months (or leader of a identifiable sub-project within an internationally evaluated scientific research project of at least 18 months duration), has led the project throughout its duration, has developed the project plan, has managed the project team and the project budget and has completed the project at the time of the applicant's application to the tender.
2. Leading a scientific research project from Paragraph 1 of this Article is also considered leading a competitive scientific research and development project financed by the European Structural and Investment Funds (ESIF) for at least 18 months, the contracted value of which for the Institute exceeds EUR 75,000 , if the applicant managed such a project during its entire duration, developed a project plan, managed the project team and the project budget, and that project was completed at the time of the applicant's application to the position.

*(G) Competence to perform the tasks of the specific workplace.*

**Article 11**

(1) The applicant’s competence is understood to be the possession of adequate knowledge and skills, experience, abilities and qualities to perform the duties of the scientific position for which the election is made.

(2) The applicant's competence is assessed by the Expert Committee, taking into account the requirements of the specification p and the general values of the Institute.

(3) The applicant's competence is determined by the Expert Committee from the documents with which the applicant demonstrates compliance with the selection criteria, based on the recommendations of foreign academics, the admission lecture held and, if applicable, based on the interview.

**Recommendations from foreign scientists**

**Article 12**

(1) In the selection procedure for a scientific position for the applicant, recommendations are obtained from respected foreign scientists who are familiar with the applicant's scientific work.

(2) When submitting the application for a position or proving that the selection criteria for a higher position are met, the applicant submits a list of foreign scientists from whom the Expert Committee requests letters of recommendation for the applicant. On the list, it is necessary to propose twice as many foreign scientists as the required number of letters of recommendation for the respective scientific position.

(3) The reputation of foreign scientists is assessed by the Expert Committee.

**Inaugural lecture**

**Article 13**

(1) In the process of election to a scientific position, the applicant is obliged to hold a publicly announced inaugural lecture. At least two members of the Expert Committee must attend the inaugural lecture.

(2) In the inaugural lecture, the applicant should present an overview of the results achieved so far and briefly present the plan of his future research.

(3) The success of the applicant's inaugural lecture is evaluated by the Expert Committee.

**Job interview**

**Article 14**

(1) In the selection procedure for a scientific position, the Expert Committee interview with the applicant in which it assesses the applicant's scientific goals, development opportunities, ability to work in a research group, potential contribution to the development of the laboratory/institute, contribution to the mission and vision of the institute and applicant's competence to fulfil the tasks of the corresponding position.

(2) The results of the interview are evaluated by the Expert Committee.

**Position: Research associate**

**Article 15**

(1) A person who meets the general conditions for election to the position prescribed by the Act, the National university, scientific and artistic criteria and the following additional criteria (A) from Article 5 of this Ordinance is eligible to be elected to the scientific position of research associate:

- to be elected to a position in the scientific field of "Natural Sciences", "Biomedicine and Health", "Biotechnical Sciences" and "Interdisciplinary Field (Science)", he must have at least 9 scientific papers. Of the above 9 papers, at least 6 must be published in journals, whose impact factor is in the first three quartiles (Q1-Q3) The applicant must be the lead author or one of the lead authors of at least 3 papers,

- to be elected to a position in the scientific field of "Technical Sciences", the applicant must have at least 10 scientific papers. Of the listed 10 papers, at least 3 must be category A papers, and one must be published in a journal with an impact factor above the median of the field to which the journal is assigned, and one must be published in a foreign journal (a foreign journal is a journal that has a publisher registered outside the Republic of Croatia and an international editorial board). The applicant must be the lead author or one of the lead authors of at least one Category A paper. Of the remaining papers, at least 4 must be category B papers, and the other papers may be category C papers.

(2) In addition to the criteria set out in Paragraph 1 of this Article, the applicant must meet at least two criteria (C) and/or (D) set out in Articles 7 and 8 of this Ordinance, which demonstrates the independence of the researcher, be assessed as qualified for the tasks of the specific position under Art. 11 (G) of this Ordinance, have obtained a letter of recommendation from a distinguished foreign scientist and have given a successful inaugural lecture.

(3) To be elected to the position of research associate, the applicant must have previously spent at least one year in postdoctoral training in a reputable research group at a scientific institution outside Croatia (the reputation of the research group is assessed by the Expert Committee).

(4) The criterion in Paragraph 3 of this Article may exceptionally be replaced by the following:

- Creditable postdoctoral work in an international environment with a total duration of at least one year,

- postgraduate training carried out in a reputable research group in a scientific institution outside Croatia with a total duration of at least one year, or

- training abroad based on a prestigious scholarship awarded for less than one year (e.g. Fulbright, Humboldt, Marie Sklodowska - Curie and similar).

(5) In order to be elected to the scientific position of research associate, at least one year must pass from the applicant's doctorate to his application for the position.

**Position: Senior research associate**

**Article 16**

(1) A person who meets the general criteria for selection to the position prescribed by the Law, the National university, scientific and artistic criteria and the following additional criteria (A) from Article 5 of this Ordinance may be elected to the scientific position of senior research associate:

- to be elected to a position in the scientific fields of "Natural Sciences", "Biomedical and Health Sciences" and "Biotechnical Sciences", the applicant must have at least 18 scientific papers, of which at least 7 must have been published in journals with an impact factor above the median of the field in which it is classified, and of these 7 papers, at least 2 papers must be published in top journals. The applicant must be the lead author or one of the lead authors of at least 7 papers;

- in order to be elected to a position in the scientific field of "Technical Sciences", he must have at least 19 scientific papers. Of the listed 19, at least 5 must be papers of category A, and of these, at least 3 must be published in journals with an impact factor above the median of the area in which the journal is classified, and 3 must be published in a foreign journal. The applicant must be the lead author or one of the lead authors of at least 2 papers from category A. Of the remaining papers, at least 6 must be papers of category B, and the others can be papers of category C.

(2) It is necessary that the applicant, after being elected to the scientific position of research associate;

- to be elected to a position in the scientific field of "Natural Sciences", "Biomedicine and Health" and "Biotechnical Sciences", published at least 6 papers, of which at least one must be published in a top journal. The applicant must be the lead author or one of the lead authors in at least one of the above 6 papers;

- to be elected to a position in the scientific field of "Technical Sciences", published at least 9 papers, of which at least 2 must be papers of the A category, at least one paper must be published in a journal with an impact factor above the median of the area in which the journal is classified and one paper must be published in a foreign journal. The applicant must be the lead author or one of the lead authors of at least one of the listed 9 papers.

(3) In addition to the criteria specified in Paragraphs 1 and 2 of this Article, the applicant must meet at least two criteria (C) from Article 7 and at least five criteria (D) from Article 8 of this Ordinance, be assessed as competent to perform the duties of the specific position under Article 11(G) of this Ordinance, as well as obtain two letters of recommendation from distinguished foreign scientists and hold a successful inaugural lecture.

(4) In order to be elected to the scientific position of senior research associate, the applicant must have previously proven himself by successfully leading junior associates through joint research work that resulted in the publication or supervision of a graduate thesis and/or master's thesis and/or doctorate, and that he has led a project in the sense of Article 8., point 1 of this Ordinance or participated in international cooperation.

**Position: Scientific advisor**

**Article 17**

(1) A person who meets the general conditions for selection to the position prescribed by the Law, the National university, scientific and artistic criteria and the following additional criteria (A) from Article 5 of this Ordinance may be elected to the scientific position of scientific advisor:

- to be elected to a position in the scientific fields of "Natural Sciences", "Biomedical and Health Sciences" and "Biotechnical Sciences", the applicant must have at least 30 scientific papers, of which at least 12 must have been published in journals with an impact factor above the median of the field in which he journal is classified, and of these 12 papers, at least 3 papers must have been published in top journals. The applicant must be the lead author or one of the lead authors of at least 12 papers, of which at least 2 papers must have been published in a top journal;

- in order to be elected to a position in the scientific field of "Technical Sciences", he must have at least 24 scientific papers. Of the above 24 papers, at least 8 must be category A papers, and of these, at least 4 must have been published in journals with an impact factor above the median of the field in which the journal is classified, and 4 must have been published in a foreign journal. The applicant must be the lead author or one of the lead authors of at least 4 Category A papers. Of the remaining papers, at least 7 must be category B papers, the others may be category C papers.

(2) After being elected to the position of senior scientific advisor, it is necessary that the applicant:

- for election for a position in the scientific field of "Natural Sciences", "Biomedicine and Health" and "Biotechnical Sciences", published at least 9 papers, of which at least one paper must be published in a top journal. The applicant must be the lead author or one of the lead authors of at least 2 of the above 9 papers;

- to be elected to a position in the scientific field of "Technical Sciences", published at least 5 papers, of which at least 3 must be papers of the category A, at least one paper must be published in a journal with an impact factor above the median of the field in which the journal is classified and one paper must be published in a foreign journal. The applicant must be the lead author or one of the lead authors of at least one of the mentioned 5 papers.

(3) In addition to the criteria specified in Paragraphs 1 and 2 of this Article, the applicant must fulfil at least three criteria (C) from Article 7 and at least six criteria (D) from Article 8 of this Ordinance, be assessed as competent to perform the duties of the specific position under Article 11(G) of this Ordinance, as well as obtain three letters of recommendation from distinguished foreign scientists and hold a successful inaugural lecture.

(4) In order to be elected to the scientific position of scientific advisor, it is necessary that the applicant fulfils the criteria of conducting at least one scientific research project from Article 10 (F) of this Ordinance or that he has obtained an income of more than EUR 75,000 for the home institution through the transfer of knowledge to the economy and commercialization of patents, or other forms of intellectual property from Article 9(E) of this Ordinance and that he was the mentor or co-mentor of at least one student who under his guidance obtained the academic degree of Doctor of Science.

**Position: Scientific advisor with tenure**

**Article 18**

(1) A person who meets the general requirements for election to the position prescribed by the Law, the National university, scientific and artistic criteria and the following additional criteria (A) from Article 5 of this Ordinance may be elected to the scientific position of scientific advisor with tenure:

- to be elected to a position in the scientific field of "Natural Sciences", "Biomedicine and Health" and "Biotechnical Sciences", he must have at least 35 scientific papers. Of the above 35 papers, at least 15 must be published in journals with an impact factor above the median of the field in which he is journal classified, and of those 15 papers, at least 5 papers must be published in top journals. The applicant must be the lead author or one of the lead authors of at least 15 papers, of which at least 4 papers must be published in a top journal;

- to be elected to a position in the scientific field of "Technical Sciences", he must have at least 31 scientific papers. Of the above 31 papers, at least 10 must be A category papers, and of these, at least 5 papers must be published in journals with an impact factor above the median of the area in which the journal is classified, and 5 papers must be published in a foreign journal. The applicant must be the lead author or one of the lead authors of at least 5 works from category A. Of the remaining papers, at least 9 must be papers of category B, and the others can be papers of category C.

(2) It is necessary that the applicant after the election to the scientific position of a scientific advisor with tenure:

- for a position in the scientific field of "Natural Sciences", "Biomedicine and Health" and "Biotechnical Sciences", published at least 5 papers, of which at least 2 papers must have been published in a top journal. The applicant must be the lead author or one of the lead authors of at least one paper published in a top journal;

- to be elected to a position in the scientific field of "Technical Sciences", published at least 5 papers, of which at least 3 must be papers of the A category, at least one paper must have been published in a journal with an impact factor above the median of the field in which the journal is classified and one paper must be published in a foreign journal. The applicant must be the lead author or one of the lead authors of at least one paper.

(3) In addition to the criteria specified in Paragraphs 1 and 2 of this Article, the applicant has to meet at least four criteria from Article 7(C) and at least seven criteria from Article 8(D) of this Ordinance, be assessed as competent to perform the duties of the specific position under Article 11(G) of this Ordinance, as well as obtain three letters of recommendation from distinguished foreign scientists and hold a successful inaugural lecture.

(4) In order to be elected to the scientific position of scientific advisor with tenure, the applicant must meet one of the following criteria:

- conducting at least two scientific research projects from Article 10 (F) of this Ordinance, or

- obtaining income for the home institution of more than EUR 150,000 through the transfer of knowledge to the economy and commercialization of patents or other forms of intellectual property from Article 9(E) of this Ordinance, or

- conducting a scientific research project from Article 10 (F) of this Ordinance while obtaining income for the home institution of more than EUR 75,000 through the transfer of knowledge to the economy and commercialization of patents or other forms of intellectual property from Article 9 (E) of this Ordinance and the criterion that he was the mentor or co-mentor of at least two students who obtained the academic degree of Doctor of Science under his guidance.

**Documentation proving the fulfilment of the selection criteria**

**Article 19**

(1) Along with the application for the election to a vacant scientific position, i.e. after starting the selection procedure for a higher research position, the applicant should submit the following documentation:

* curriculum vitae;
* proof of academic degree;
* a summary of scientific activity since the last election;
* data on meeting the National university, scientific and artistic criteria (prescribed by the Ordinance on the conditions for elections to scientific positions);
* data on compliance with the additional selection criteria prescribed by this Ordinance, including data on the indexing and citation of papers, journal impact factors and h-index;
* data on lead authorship;
* program of planned research (up to one page of text);
* a list with a proposal of distinguished foreign scientists whom the Expert Committee will ask for recommendations;
* list of scientific papers;
* a list of the most significant papers from his oeuvre that best demonstrate his field of activity, and especially his scientific contribution, particularly expressed by papers on which the applicant is the lead author or one of the lead authors, namely:

- in the scientific field of "Natural Sciences", "Biomedicine and Health" and "Biotechnical Sciences “:

i.) for election to the position of research associate 5 papers;

ii.) for election to the position of senior research associate 10 papers;

iii.) for election to the position of scientific advisor and scientific advisor with tenure 15 papers;

- in the scientific field of " Technical sciences “:

i.) for selection to the position of research associate, 2 papers of category A;

ii.) for selection to the position of senior research associate 4 papers of category A;

iii.) for selection to the position of scientific advisor and scientific advisor with tenure 6 papers of category A.

(2) If the applicant is an employee of the Institute, he is obliged to attach a Certificate of indexation and citation of works, journal impact factors and h-index, and in other cases, the said Certificate will be obtained by the Expert Committee.

(3) Evidence of meeting the selection criteria is submitted in electronic form.

**Evaluation of the fulfilment of the selection criteria**

**Article 20**

The Expert Committee assesses the fulfilment of the selection criteria based on the documentation submitted by the applicant under Article 19 of this Ordinance, the letters of recommendations of distinguished foreign scientists, the held inaugural lecture and, if necessary, an interview for the position.

**III. CRITERIA FOR RE-ELECTION TO SCIENTIFIC POSITIONS**

**Field: Natural Sciences**

**Article 21**

1. For re-election to the scientific position of research associate, the applicant must fulfil the following conditions:

* the applicant must have a total of at least 14 scientific papers, of which at least 3 must be published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of senior research associate, the applicant must fulfil the following conditions:

* the applicant must have a total of at least 24 scientific papers, of which at least 5 must be published after the previous election or re-election,
* the applicant must be the lead author or one of the lead authors of at least one paper published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of scientific advisor, the applicant must fulfil the following conditions:

* the applicant must have a total of at least 33 scientific papers, of which at least 3 must have been published after the previous election or re-election,
* of the above 3 works that have to be published after the previous election or re-election, at least 2 must be published in journals with an impact factor above the median of the area in which the journal is classified,
* the applicant must be the lead author or one of the lea,d authors of at least one paper published after the previous election or re-election
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

**Article 22**

When evaluating the conditions for re-election in the scientific field of "Natural Sciences", the provisions of Article 5, Paragraph 3 and Article 6, Paragraph 7 of this Ordinance shall be applied appropriately.

**Field: Biomedicine and healthcare**

**Article 23**

1. For re-election to the scientific position of research associate, the applicant must fulfil the following conditions:

* the applicant must have a total of at least 12 scientific papers, of which at least 3 must be published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of senior research associate, the applicant must fulfil the following conditions:

* the applicant must have a total of at least 23 scientific papers, of which at least 3 must be published after the previous election or re-election,
* the applicant must be the lead author or one of the lead authors of at least one paper published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of scientific advisor, the applicant has to fulfil the following conditions:

* the applicant must have a total of at least 33 scientific papers, of which at least 3 must have been published after the previous election or re-election,
* the applicant must be the lead author or one of the lead authors of at least one paper published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

**Article 24**

When evaluating the conditions for re-election in the scientific field "Biomedicine and Health", the provisions of Article 5, Paragraph 3 and Article 5, Paragraph 4 of this Ordinance shall be applied appropriately.

**Field: Technical sciences**

**Article 25**

1. For re-election to the scientific position of research associate, the applicant has to fulfil the following conditions:

* the applicant must have a total of at least 13 scientific papers, of which at least 3 must have been published after the previous election or re-election,
* of the listed 13 papers, at least 4 have to be papers of category A, at least 5 papers must be papers of category B, and the others can be papers of category C,
* out of the 4 papers of the A category, at least 1 work has to be published in a foreign journal,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of senior research associate, the applicant must fulfil the following conditions:

* the applicant must have a total of at least 22 scientific papers, of which at least 3 published after the previous election or re-election,
* of the listed 22 papers, at least 6 have to be papers of category A, at least 7 papers must be papers of category B, and the others can be papers of category C,
* of the above 6 papers of category A, at least 1 paper must be published in a foreign journal,
* the applicant must be the lead author or one of the lead authors of at least one paper published after the previous election or re-election,
* - the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of scientific advisor, the applicant has to fulfil the following conditions:

* the applicant must have a total of at least 27 scientific papers, of which at least 3 must be published after the previous election or re-election,
* of the listed 27 works, at least 9 works must be works of category A, at least 8 works must be works of category B, and the other works can be works of category C,
* of the 3 papers that must be published after the previous election or re-election, at least one paper must be published in a journal with an impact factor above the median of the area in which the journal is classified,
* the applicant must be the lead author or one of the lead authors of at least one paper published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. Upon re-election to a position in the scientific field of "Technical Sciences", the provisions of Article 5, Paragraphs 5, 6 and 7 of this Ordinance shall be applied appropriately.

**Field: Biotechnical Sciences**

**Article 26**

1. For re-election to the scientific position of research associate, the applicant has to fulfil the following conditions:

* the applicant must have a total of at least 12 scientific papers, of which at least 3 must have been published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of senior research associate, the applicant must fulfil the following conditions:

* the applicant must have a total of at least 23 scientific papers, of which at least 3 must be published after the previous election or re- election,
* the applicant must be the lead author or one of the lead authors of at least one paper published after the previous election or re-election
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

1. For re-election to the scientific position of scientific advisor, the applicant has to fulfil the following conditions:

* the applicant must have a total of at least 33 scientific papers, of which at least 3 must be published after the previous election or re- election,
* the applicant must be the lead author or one of the lead authors of at least one paper published after the previous election or re-election,
* the applicant is obliged to hold an inaugural lecture under Article 13 of this Ordinance.

**Article 27**

When evaluating the conditions for re-election in the scientific field of "Biotechnical Sciences", the provisions of Article 5, Paragraph 4 of this Ordinance shall be applied appropriately.

**The documentation to be submitted upon initiation of the re-election procedure**

**Article 28**

(1) Upon initiation of the re-election procedure for the position of scientist, the applicant should submit the following documentation:

* curriculum vitae with personal data of the applicant (name and surname, date and place of birth, professional or academic title),
* data on the applicant's workplace and the date of the last election or re-election to the workplace,
* prescribed criteria for re-electionto the position with an indication of the criteria that the candidate for re-electionfulfils,
* summary of scientific activity after the last election or re-election,
* data on compliance with the National university, scientific and artistic criteria for re-election (prescribed by the Decision on the minimum conditions of work obligations for re-electionto scientific, scientific-teaching, art-teaching, teaching and professional positions and on the form of the Expert Committee's report on the work of employees in the process re-election and the Ordinance on the conditions for elections to scientific positions),
* data on compliance with the criteria for re-electionto a scientific position prescribed by this Ordinance, including data on the indexing and citation of papers and journal impact factors,
* list of scientific papers published after the previous election or re-election
* data on lead authorship.

(2) Evidence of meeting the criteria for re-electionto the position shall be submitted in electronic form.

**Report of the Expert Committee in the re-election procedure**

**Article 29**

(1) The report of the Expert Committee in the procedure of re-election to the position of scientist must contain:

a) information about the members of the Expert Committee,

b) data on the Scientific Council's decision to initiate the re-election procedure,

c) personal data about the applicant who is in the process of re-election (name and surname, date and place of birth, professional or academic title),

d) data on the position of the candidate who is in the process of re-election and the date of the last election or re-election to the position,

e) the prescribed criteria for re-electionwith an indication of the criteria fulfilled by the applicant,

f) analysis of the criteria that the candidate for re-electionfulfils, including the evaluation of the results of the scientific work,

g) assessment of whether the applicant meets the criteria for re-election to the position of scientist,

h) opinion and proposal of the Expert Committee.

(2) The report of the Expert Committee from Paragraph 1 of this article is also prepared in digital form.

**Evaluation of meeting the criteria for re-election**

**Article 30**

The Expert Committee evaluates the fulfilment of the criteria for the re-electionof applicants to the position of scientist based on the documentation submitted under Article 28 of this Ordinance and the held inaugural lecture.

IV. TRANSITIONAL AND FINAL PROVISIONS

**Previous categorization of papers**

**Article 31**

All papers of an applicant that were categorized according to the regulations that determined the selection criteria before the entry into force of this Ordinance, retain the categorization they received according to those regulations.

**Entry into force and application of the Ordinance**

**Article 32**

(1) Based on the transitional provision of Article 119, Paragraph 6 of the Act, until the National University, Scientific and Artistic Criteria come into force, the Ordinance on the conditions for election into scientific professions (Official Gazette, No. 28/17, 72/19, 21/21. and 111/22.) and the Decision on the minimum conditions of work obligations for re-election to scientific, scientific-teaching, art-teaching, teaching and professional positions and on the form of the report of the Expert Committee on the work of employees in the re-election procedure (Official Gazette, number: 24/21.) are applied.

(2) Under the transitional provisions of Article 29 of the Ordinance on Amendments to the Ordinance on the Conditions for Election to Scientific Professions (Official Gazette, number: 111/22.), within 24 months from the entry into force of that Ordinance, the candidate's choice will be applying the provisions of the Ordinance on the conditions for election into scientific professions (Official Gazette, no. 28/17, 72/19 and 21/21) will be applied to the applicant's choice. As an exception to the above, if the applicant so requests in an individual case, the provisions of the Ordinance on the conditions for election into scientific professions (Official Gazette, number: 111/22.) can be applied to his election even before 24 months have passed since its entry in force.

(3) This Ordinance shall be applied to elections or re-elections to scientific positions at the Institute 24 months after the date of entry into force of the Ordinance on Amendments to the Ordinance on the Conditions for Election to Scientific Professions (Official Gazette, number: 111/22), and until then, the criteria prescribed by the Ordinance on additional conditions for election to scientific positions from 6 October 2020, which was amended by the Ordinance on Amendments to the Ordinance on Additional Conditions for Election to Scientific Positions from 6 October 2020, shall be applied to these elections or re-elections, and the Ordinance on II. amendments to the Ordinance on additional conditions for election to scientific positions from 21 December 2021 and the Ordinance on III. amendments to the Ordinance on additional conditions from 3 June 2022 shall be applied to elections for election to scientific positions.

(4) As an exception to the provision of Paragraph 3 of this Article, if the applicant, under the provision of Article 29 of the Ordinance on Amendments to the Ordinance on the Conditions for Election to Scientific Professions (Official Gazette, number: 111/22), requests the application of that Ordinance even before 24 months have passed since it entered into force, the provisions of this Ordinance shall be applied to his election or re-election to a scientific position at the Institute before 24 months have passed since the Ordinance on the conditions for election into scientific positions (Official Gazette, number: 111/22.).

(5) The procedure for election or re-electionto a scientific position started before the entry into force of this Ordinance shall be conducted according to the regulations that were in force at the time the procedure was initiated.

(6) On the date of entry into force of this Ordinance, the Ordinance on additional conditions for election to scientific positions of 6 October 2020, which was amended by the Ordinance on Amendments to the Ordinance on Additional Conditions for Election to Scientific Positions of 6 October 2020, the Ordinance on II. amendments to the Ordinance on additional conditions for election to scientific positions from 21 December 2021 and the Ordinance on III. amendments to the Ordinance on additional conditions for the election of scientific positions from 3 June 2022, ceases to be valid, except for those provisions of that Ordinance that are stated by this Ordinance to be applied even after the entry into force of this Ordinance, until the time specified under Paragraph 3 of this Article.

(7) This Ordinance shall enter into force on the eighth day from the date of its publication on the Institute's bulletin board.

(8) In addition to being published on the bulletin board, this Ordinance will be made publicly available by publication on the Institute's website.

Number: 012-6539/4-2022

In Zagreb, 23 November 2022

President of the Scientific Council:

Ivančica Bogdanović Radović, Ph.D.

It is established that the Ordinance on additional selection criteria for the election to scientific positions was published on the bulletin board on 24 November 2022 and will enter into force on 2 December 2022.

Director General:

David Matthew Smith, Ph.D.