Lisa 2 KINNITATUD SA Eesti Teadusagentuur juhatuse 10.03.2017 käskkirjaga nr 1.1-4/17/44

Personaalse uurimistoetuse järeldoktori grandi taotluste hindamisjuhend Guidelines for evaluating personal research funding applications for postdoctoral grants

I Introduction

The award of personal research funding for postdoctoral grants has been stipulated in the "Conditions of and Procedure for Application for Postdoctoral Grant".

These "Guidelines for evaluating personal research funding applications for postdoctoral grants" (guidelines) is a document which specifies the evaluation criteria set forth in the "Conditions of and Procedure for Application for Postdoctoral Grant".

II Relevant terms

- 1) Personal research funding means funding allocated for a high level research and development project of a person or a research group working in a research and development (R&D) institution, including the research scholarship of Master's students and Doctoral candidates (as specified in the Organisation of Research and Development Act). Personal research funding comprises three categories of grants corresponding to different levels of research career: postdoctoral grants, start-up grants and team grants:
 - A postdoctoral research grant is a grant to support launching a research career of persons with a doctoral degree or equivalent qualification at strong research and development institutions or high level research groups. There are two types of postdoctoral grants:
 - a grant for a postdoctoral researcher coming to Estonia;
 - a grant for a postdoctoral researcher going abroad.
 - A start-up research grant is a grant to support the researchers with initial research experience to launch independent research career at an Estonian R&D institution, to set up their research group and to contribute to furthering the next generation (incl doctoral candidates) of researchers.
 - A team grant is a grant to support researchers in continuing their research career at an Estonian R&D institution, ensuring high level research, leading a strong research group and furthering the next generation (incl doctoral candidates) of researchers.
- 2) A **research project is** a description of research activities with a clearly defined and justified research problem/topic and the methodology to address the problem/topic.
- 3) A **Principal Investigator** (PI) is a researcher who applies for a team grant, start-up grant or a postdoctoral grant (postdoctoral fellow) and has received consent from a host institution.

- 4) **A Host institution** is an Estonian research and development institution that has signed a work contract with the researcher for implementing the postdoctoral project if such a contractual relationship did not already exist at the time of awarding a postdoctoral grant.
- 5) **A Collaborating institution** is a foreign research and development institution where an outgoing postdoctoral fellow will carry out the postdoctoral project.

III Criteria for applying

1. Postdoctoral Fellow

A Postdoctoral Fellow is a person who:

- 1) has been awarded a doctoral degree or an equivalent qualification within the past five years as of the deadline for the submission of grant applications. In case the applicant was on pregnancy leave, parental leave or in compulsory military service (or equivalent alternative service) after the award of the doctoral degree, the period of qualification is extended by the corresponding period in full months, rounded up to the higher number of months;
- 2) has not undertaken doctoral studies nor obtained a doctorate, including the cotutelle agreement, in the same institution where the postdoctoral grant will be implemented, and has previously not received postdoctoral research funding from the Estonian Research Council (hereinafter Council):
- 3) (if outgoing) has studied or worked at least 12 months in Estonia by the submission date of the application.

A postdoctoral supervisor is a researcher who has a doctoral degree or equivalent qualification. The supervisor has an employment contract with the host institution (or with the foreign collaborating institution). The supervisor cannot be a person who has been a supervisor of the applicant's doctoral dissertation.

2. Application

The application for a postdoctoral grant (hereinafter application) shall include the following:

- 1) information about the postdoctoral fellow and the supervisor of postdoctoral research;
- 2) the title of the research project;
- 3) a short summary of the project;
- 4) the applied grant period;
- 5) the grant type applied for according to the set grant volumes and its justification;
- 6) the general theoretical background to the project;
- 7) the main objectives of the research project, hypotheses and/or research questions, description of methods, and the work plan, incl. tentative annual work plans and the availability of research infrastructure for achieving the objectives of the project;
- 8) the expected results and their potential applicability, importance for Estonian science, economy and society as well as possible future research directions;

- 9) the use of research methods that require review or approval from a human ethics or a bioethics research committee (If the corresponding approvals are obtained by the application deadline, applicants are asked to attach them to the application);
- 10) a confirmation how research ethics principles will be adhered to and an explanation how project data will be managed;
- 11) Postdoctoral fellow 's previous research and his/her supervisor's research and development activity during the last 10 years indicating the PI's personal contribution to the publications linked to the application (or of a selection from thereof);

IV Evaluation

Grant applications shall be evaluated by the Evaluation Committee of the Estonian Research Council based on the well-reasoned opinions of the individual reviewers and expert panels. The following evaluation criteria will be considered:

- 1) justification for and feasibility of the research project, incl. objectives, methods, resources and infrastructure;
- 2) potential applicability of the expected results, taking into account the specifics of the research field:
- 3) the qualification of the postdoctoral fellow;
- 4) the qualification of the supervisor;
- 5) considerations on ethical and data management issues;
- 6) importance for Estonian science, society and economy;
- 7) justification for the applied grant type.

V Rating scales to be used in the review

Rating scales

A five-point rating scale is used in evaluating sections 1–4, and 6 of the application (outstanding, very good, good, satisfactory, or unsatisfactory). The evaluation is provided to a level of precision of 0.5 points, i.e. intermediate values like very good–outstanding, good–very good, etc. can be used.

An undifferentiated rating scale (appropriate, not appropriate) is used in evaluating section 5 and 7 of the application.

The numeric for evaluating sections 1–4, and 6 values in the drop-down menu are as follows:

- Outstanding (5);
- Very good (4);
- Good (3);
- Satisfactory (2);
- Unsatisfactory (1).

The marks for evaluating section 5 and section 7 are as follows:

- Appropriate;
- Not appropriate.

The final score can range from 5 to 25 points.

Threshold

Research projects which receive less than three points for section 1, 2, 3, 4 or 6, and/or are assessed as 'not appropriate' in section 5 or 7 do not qualify for funding.

When evaluating applications, reviewers should take into account the following guidelines.

VI Evaluation criteria to be used for reviewing postdoctoral grants

Please make comments for all criteria.

1. Justification for and feasibility of the research project, incl. objectives, methods, resources and infrastructure

Guiding questions

Is the application characterized by a conceptually innovative approach? Is the application well-justified and clearly outlined and does it contain well-defined hypotheses and research questions?

Are the proposed methods adequate, up-to-date and/or innovative? Is the research plan clear and appropriate for its stated purpose and the elaboration of tasks justified and appropriate?

Other comments on Section 1.

Rating scale for Section 1:

Outstanding

The research ideas are highly original and innovative; an internationally competitive research project; the application addresses crucial/cutting-edge research questions or knowledge gap; the objectives are very clearly articulated and justified; the hypotheses and research questions are very well elaborated.

The application includes highly original methodology and/or design; the methods are very clearly described, up-to-date, very well-articulated and highly relevant for achieving the objectives. the research plan is very clearly described and relevant for achieving the objectives; the tasks are very well justified and appropriate.

Very good

The research ideas are original and innovative, internationally competitive and cutting-edge nationally; the project addresses an important research question or knowledge gap; the objectives are clearly articulated and justified; the hypotheses and research questions are mostly well elaborated.

The application includes original methodology and/or design; the methods are clearly described, up-to-date, well-articulated and relevant for achieving the objectives; the research plan is clearly described and relevant for achieving the objectives; the tasks are clearly justified and appropriate.

Good

The research ideas are original and partially internationally competitive; the application addresses a worthwhile research question or knowledge gap; the hypotheses and research objectives need some additional elaboration.

A methodologically sound study; the methods are articulated and justified, up-to-date and/or innovative to some extent; the research plan needs some clarification; the tasks can be implemented but certain improvements and adjustments are necessary.

Satisfactory

The research ideas are somewhat original and innovative at the national level; the application addresses a knowledge gap, but justification needs additional clarifications and adjustments; the hypotheses and research questions need major additional elaboration.

A methodologically sound study but some areas require revision; the methods are somewhat articulated and justified, not very up-to-date and/or innovative; the research plan needs some revision; certain, but not all tasks can be implemented.

<u>Unsatisfactory</u>

The proposed topic has been exhaustively studied. There is limited likelihood of new knowledge generation. The research topic is poorly defined and the application lacks clear hypotheses and research questions.

The methods are inadequate for achieving the overall goal, not up-to-date nor innovative; the research plan and elaboration of tasks need profound revision.

2. Potential applicability of the expected results, taking into account the specifics of the research field

Guiding questions

Does the project significally contribute to the development of the research field?

Have the expected results potential for further research and for applicability?

Other comments on Section 2.

Rating scale for Section 2:

Outstanding

The expected results of the project are innovative or distinctive compared to existing knowledge and could have a substantial impact in the context of the research field.

The project indicates very clearly possibilities for further research and/or concrete application.

Very good

The goals of the project are ambitious and the expected results could have a substantial impact in the context of the research field.

The project indicates feasible possibilities for further research and/or concrete application.

Good

The expected results of the project may have some impact in the context of the research field.

The project indicates some possibilities for further research and/or concrete application but their feasibility is somehow unclear.

Satisfactory

The possible impact of the expected results of the project has not been addressed clearly.

The project addresses some possibilities for further research and/or concrete application but their feasibility is questionable.

<u>Unsatisfactory</u>

The project does not contribute to the development of the research field.

No possibilities for further research and/or concrete application have been considered in the project.

3. The qualification of the applicant

Guiding questions

What are the merits and scientific expertise of the postdoctoral fellow? Are the competencies of the postdoctoral fellow appropriate and sufficient for the proposed project? Does the postdoctoral fellow show the potential for research independence and evidence of maturity? (The quality and results of the postdoctoral fellow 's previous research activities; the quality and capacity of his/her previous research and results (on international level), the number and quality of publications; experience in participation in research projects (home and abroad), in conferences; skills obtained, and other research-related activities, and how will the project contribute to the training of the applicant and promote his/her research career.)

Other comments on Section 3.

Rating scale for Section 3:

Outstanding

The applicant has excellent potential for successfully implementing the proposed research plan; publications and/or monographs are at a very good international level; articles are published in respectable peer-reviewed journals or proceedings indexed in the leading databases of the field; monographs are published by international top publishers; the applicant has very good experience in participation in international collaborative projects, conferences and other research-related activities.

Very good

The applicant has very good potential for successfully implementing the proposed research plan; articles are published in peer-reviewed journals or international proceedings; monographs are published by acknowledged publishers; the applicant has good experience in participation in international collaborative projects, conferences and other research-related activities.

Good

The applicant has good potential for successfully implementing the proposed research plan; some articles are published in peer-reviewed journals or international proceedings; monographs are published by national publishers; the applicant has some experience in participation in international collaborative projects, conferences and other research-related activities.

Satisfactory

There is questionable potential for successfully implementing the proposed research plan; the applicant's research and publishing record are very weak; the competencies of the applicant do not support the achievement of the established objectives; the applicant has some experience in participation in national collaborative projects, conferences and other research-related activities.

Unsatisfactory

There is insufficient potential for successfully implementing the proposed research plan; the applicant's research and publishing record are very weak; the competencies of the applicant do not support the achievement of the established objectives. the applicant has not participated in any collaborative projects, conferences and other research-related activities.

4. The qualification of the supervisor

Guiding questions

Is the supervisor's experience in supervision of postdoctoral fellows and PhD students sufficient for supporting the project? Does his/her previous research and results indicate a sound qualification for supervising the postdoctoral fellow? (The number and quality of publications, the experience in supervising PhD students and postdoctoral fellows; the scope of managing and/or participating in domestic and/or international R&D projects, and other research-related activities.)

Other comments on Section 4.

Rating scale for Section 4:

Outstanding

The supervisor is among the leaders in his/her field; publications and/or monographs are at an outstanding international level; articles are published in the best peer-reviewed journals or proceedings indexed in the leading databases in the field; monographs are published by internationally acknowledged publishers. The supervisor has been very successful in obtaining additional funding (grants, sponsored research, etc.). The supervisor has long and thriving experience in supervision of postdoctoral fellows and doctoral students; there is a very good complementarity between the proposed project and the supervisor's field of research.

Very good

The supervisor is renowned in his/her field; publications and/or monographs are at a very good international level; articles are published in respectable peer-reviewed journals or proceedings indexed in the leading databases of the field; monographs are published by internationally acknowledged publishers. The supervisor has been successful in obtaining additional funding (grants, sponsored research, etc.). The supervisor has long experience in supervision of postdoctoral fellows and/or doctoral students; there is good complementarity between the proposed project and the supervisor's field of research.

Good

The supervisor is well-known in his/her field; articles are published in peer-reviewed journals or international proceedings; monographs are published by acknowledged publishers; the supervisor has obtained some additional funding (grants, sponsored research, etc.) in the past; the supervisor has supervised postdoctoral fellows and/or doctoral students; there is fair complementarity between the proposed project and the supevisor's field of research.

<u>Satisfactory</u>

The supervisor is not well-known in his/her field; articles are published in journals and proceedings which are not indexed in the leading databases in the field; no monographs have been published; the supervisor has obtained very little additional funding (grants, sponsored research, etc.); the supervisor has supervised only a few postdoctoral fellows and/or doctoral students; there is poor complementarity between the proposed project and the supevisor's field of research.

Unsatisfactory

The supervisor's research and publishing record are weak; there is insufficient potential for successfully implementing the proposed research plan; the competencies of the supervisor do not support the achievement of the proposed objectives; the supervisor has not been successful in obtaining additional funding (grants, sponsored research, etc.); the supervisor has not supervised postdoctoral fellows and/or doctoral students before; there is poor complementarity between the proposed project and the supevisor's field of research.

5. Considerations on ethical and data management issues

Explanation

The applicants are required to consider the ethical risk of any procedure within a research project which involves human participation or personal data, incl. a description of how the principles of voluntary participation, informed consent, confidentiality and anonymity of subjects will be followed, and a statement on how such data will be stored and protected. Use of research methods that require review or approval from a human ethics or a bioethics research committee, should be also clearly indicated in the application (the need for such approvals will be checked by the Expert Panel). The applicants are also expected to consider issues related to secure storage of data either generated or used during the project period and making them available based on the open data principle (if not restricted due to data protection requirements).

5.1. Ethical issues

Guiding question

Are there any ethical issues involved and, if so, have they been adequately considered and addressed?

Please choose one of the following answers:

Not applicable

Appropriate - ethical issues are adequately addressed (please comment)

Not appropriate - crucial ethical issues are not adequately addressed (comment is obligatory).

5.2. Data management issues

Are the data management issues, incl. data protection worked out in a sufficient way (if appropriate)?

Please choose one of the following answers:

Not applicable

Appropriate – data management issues are adequately addressed (please comment)

Not appropriate - crucial data management issues, incl. data protection are not adequately addressed (comment is obligatory).

NB! Breaching ethical principles and insufficient considerations of data management issues may exclude the applicant from receiving the grant. This decision will be made by the Evaluation Committee taking into account the opinions of the reviewers.

Other comments on Section 5.

NB! The next two sections will be evaluated only by the expert panel and the Evaluation Committee.

6. Importance for Estonian science, society and economy

NB! Only the expert panel and the Evaluation Committee will evaluate this section.

Guiding questions

Does the project have potential impact on the development of Estonian science, society, and economy?

In writing your assessment of this section please pay attention to the following issues: how relevant are the project results/knowledge obtained for Estonian science, (specific) research area, economy and sustainability of Estonian science, culture and environment. What is the added value (in addition to the personal development and experience of the post-doc)? The relevance may entail contributing to a new, fast developing research area, further elaborating a research method or developing a novel method, widening the existing or adding new competences at the host institution (Estonian R&D institution),

extending the International and/or interdisciplinary cooperation to increase the competitiveness of Estonian science, etc.

Other comments on Section 6.

Rating scale for Section 6:

Outstanding

The project has a significant impact on the development of Estonian science, society, and economy.

Very good

The project has a considerable impact on the development of the Estonian science, society, and economy.

Good

The project has a potential impact on the development of Estonian science, society, and economy.

Satisfactory

The project has a modest impact on the development of Estonian science, society, and economy.

Unsatisfactory

The project has no impact on the development of Estonian science, society, and economy.

7. Justification for the applied grant type.

NB! This section will be evaluated only by the Evaluation Committee, and not scored.

The Evaluation Committee has to comment on the following:

- 7.1. Is the applied grant type clearly and well justified?
- 7.2. Is the applied grant type appropriate for the planned research?

Other comments on Section 7.

Rating scale for Section 7:

Appropriate

The grant type (amount and volume of direct costs) is well thought out, clear and justified. The grant type applied for is appripriate for implementing the project and achieving the set objectives.

Not appropriate

The grant type (amount and volume of direct costs) is unclear and/or insufficietly justified. The grant type applied for is not appropriate for implementing the project and achieving the set objectives.

Overall assessment and the final score of the application

NB! This section will be filled in by the expert panel and the Evaluation Committee.

The final score of the application is a sum of justified assessment scores for sections 1–4, and 6 by the Evaluation Committee.

Main arguments underlying the scores as well as main strengths and weaknesses have to be pointed out here.

Overall comments on the application.