Swedish Research Council

Peer review handbook

Medicine and Health 2024

Instructions for the review panel MH-CAREER

Content

Foreword

Welcome as reviewer to the Scientific Council for Medicine and Health! The reviewing of applications forms the basis of the Scientific Council's operations. Your position as a member of one of the review panels is an important position of trust. Your work is very important and I hope you realize how much we and all the scientists that are applying for funding this year appreciate your efforts.

To assist you in your assignment we have prepared these instructions. It contains guidelines to help you in the review process as well as general policies. We would like to ask you to read the instructions thoroughly and the linked documents, i.e. the Swedish Research Council's conflict of interest and gender equality policy to be well prepared for your upcoming work.

Thank you for your efforts and welcome as a reviewer for the Swedish Research Council!

Madeleine Durbeej-Hjalt
Secretary General, Medicine and health

The members of the review panel MH-CAREER

Name	Organisation	Country
Sven Nelander, Chair	Uppsala University	Sweden
Jordana Bell	King's College London	United Kingdom
Ivan Bogeski	Heart Center Göttingen	Germany
Tim Hucho	University of Cologne	Germany
Anna Keski-Rahkonen	University of Helsiniki	Finland
Tarja Malm	University of Eastern Finland	Finland
Antonio Moschetta	University of Bari	Italy
Mihaela Crisan	University of Edinburgh	United Kingdom
Joachim Weischenfeldt	University of Copenhagen	Denmark
Nicola Zamboni	ETH Zürich	Switzerland
Manuela Zucknick	University of Oslo	Norway
Vacant		

Instructions for the review panel MH-CAREER

The Scientific Council for Medicine and Health has taken the decision that all review panel meetings 2024 are carried out on a digital basis. ‘The panel meeting’ in this handbook refers to the Zoom-meeting held 9-10 October 2024.

General starting points and principles

There are certain guidelines and principles which apply during all steps in the review work, and which are important for you to know about as a reviewer.

New features in the applications

A new contextualising part has been introduced in the application, which should be seen as a complement to the other parts of the application that describes the applicant’s competence. In this part, the applicant should describe how the merits that have been listed in the CV and under “Publications and other research output” show the competence to carry out the proposed research.

The list of publications in the application is now called “Publications and other research outputs.” It consists of two parts where the applicant must separate between publications and research outputs that have been peer-reviewed and not peer-reviewed.

The subheading "Clinical significance" has been removed from the research plan. The reason is that the Swedish Research Council funds all types of research within medicine and health, including basic research. If relevant, the applicant can still describe the clinical significance of the project under the subheading "Significance and scientific novelty".

Peer review

The Swedish Research Council regards peer review as a guarantor that our support goes to research of the highest scientific quality in all scientific fields. The board of the Swedish Research Council has formulated guidelines for peer review based on eight principles. Read the guidelines for peer review.

Conflict of interest

To avoid any conflict of interest situation, we have established strict guidelines. Read the Swedish Research Council’s conflict of interest policy and guidelines for managing conflicts of interest.

If you have a conflict of interest, you must not take part in the handling or assessment of that application during any part of the process. You are obliged to notify any conflict of interest for all applications handled by your review panel.

Gender equality

The Swedish Research Council aims to ensure that women and men have the same success rates and receive the same average grant amounts, taking into account the nature of the research and the form of support. The review panel shall calculate the approval rate for women and men and, when ranking applications of equal quality, applicants from the under-represented gender should be prioritised.

Confidentiality and integrity

Handle the applications and the review of them in a confidential manner:

- Do not disseminate documents that you get access to.
- Delete documents that relate to the review work after completing the task.
- Do not speak to outsiders about what was discussed during the review.
- Do not use information in the application for personal gain.
- Let the Swedish Research Council personnel manage all communications with applicants.

Deviations in the application

If you suspect that the content of an application does not follow good research practice, please inform the Swedish Research Council personnel as soon as possible. ***Please do not wait until the review panel meeting.*** This also includes if you think that there is incorrect information in the application. Continue with the review unless we notify otherwise. The Swedish Research Council is responsible for further investigation in cases of deviations in the application.

Irrelevant information

Base your assessment only on the contents of the application itself. Irrelevant information must not impact on the assessment. Disregard any rumours or unsubstantiated information that you believe you know and instead contact the Swedish Research Council personnel as soon as possible if you have any questions or think that something is wrong with an application.

AI in the assessment of applications

Generative AI tools (ChatGPT or similar) must not be used in the scientific assessment of the applications. The assessment is a task that must be carried out by a specialist researcher, who has been recruited based on their expertise in the area. On the other hand, there is no prohibition against using digital AI tools for tasks such as improving the language in written statements on applications, as long as this does not entail factual contents or the applicant's personal data being disseminated.

AI in applications

There is no prohibition against the applicants to use generative AI or other tools (digital or of another type) when they draw up the application. At present, they do not need to state whether they have used AI. Read the guidelines for the use of AI tools.

Ethical aspects

The applicant shall state whether there are any requirements for permits and approvals for the research planned. If there are such requirements, the applicant shall also describe how the permits and approvals will be obtained. If parts of the research will be conducted abroad, the applicant must be able to describe how this impact any requirement for permits or approvals. Necessary permits and approvals must be in place when the research begins. The assessment of legal and formal requirements is a part of the feasibility criterion.

The assessment of ethical aspects also includes examining how applicants reflect on ethical considerations. The evaluation of ethical considerations is part of the criterion for the scientific quality of the project.

Sex and gender perspectives

The assessment of scientific quality includes scrutinising how sex and gender perspectives are included in the applications, when relevant to the research. For more information, please read the instructions for applicants.

The task of the review panel

The review panel MH-CAREER is an overarching panel that assesses starting grant and consolidator grant applications nominated by 19 subject-oriented panels (see appendix 2 for further description of these panels). Your task as a reviewer is to assess the quality of the research project and the potential of the applicant to become an independent researcher in Sweden alternatively to become a consolidated independent researcher in Sweden.

Starting grants

The purpose of the Starting grant within medicine and health is to enable junior scientists to establish themelves as independent researchers in Sweden. Applicants are individual researchers who have completed their doctoral degrees more than 2 years ago and up to 7 years ago. The grant period is four years with an amount of 1 500 000 SEK per year and at least 30 grants will be funded.

Consolidator grants

The purpose of the Consolidator grant within medicine and health is to give the most prominent junior researchers the opportunity to consolidate their research and broaden their activities as independent researchers. Within the framework of the call, the Swedish Research Council wishes to support researchers who have a scientifically interesting research idea, and who can convert and conduct the research task and thereby move the frontiers of research forward, or fill in existing gaps in knowledge. Applicants are individual researchers who have completed their doctoral degrees more than 7 years ago and up to 12 years ago. The grant period is five years with an amount of 2 000 000 SEK per year and at least 6 grants will be funded.

Roles in the panel

Chair

The chair is leading the review panel's work in accordance with the Swedish Research Council's guidelines and reads all the nominated applications but does not grade applications or act as a rapporteur. The chair leads the panel meeting and is also responsible for controlling that the final statements are written according to the consensus of the review panel and reports back to the Scientific Council of Medicine and Health.

Panel member

As a member of the MH-CAREER panel, you need to catagorise the assigned applications into three catagories; 1 (low priority), 2 (medium priority), and 3 (high priority). Please note that starting grants and consolidator grants should be reviewed separately and not be compared to one another. Please complete your individual review work according to the time schedule in the web based review system Prisma (https://prisma.research.se). Each application

is normally reviewed by five panel members, of which one acts as the rapporteur. At the panel meeting, the rapporteur starts the discussion by giving a brief summary of the application followed by his/her evaluation. Each reviewer then takes active part in the discussion. The rapporteur must take notes in order to be able to summarise the review panel's final statement in Prisma.

Swedish Research Council personnel

A research officer and a senior research officer from the Swedish Research Council are assigned to support the panel and the chair, to manage the administrative handling of the evaluation and to provide information regarding handling procedures, rules, policies, etc. Thus, the chair and the Swedish Research Council personnel jointly ensure that the Swedish Research Council's rules and procedures for the review process are being followed.

Observer

A member of the Scientific Council of Medicine and Health will join the panel meeting in October as an observer. The purposes is to be a link between the panel and the Scientific Council and to give feedback on the panels' work. Along with the Swedish Research Council personnel, the observer is part of the continuous quality assurance of the evaluation process.

The review process

The 19 subject-oriented panels nominate applications of the highest quality to be evaluated by the MH-CAREER panel (please see Appendix 3 for a description of the grading scales and the evaluation criteria used by the subject-oriented panels). The individual panels may nominate up to 20% of the starting grant applications and up to 20% of the consolidator grant applications. All nominated applications must have an overall grade of at least 5 for starting grants and at least 6 for consolidator grants. If there are truly excellent applications (overall grade of at least 6) that the panel wishes to nominate in addition to the top 20 per cent, this can be discussed with the Secretary General.

Each nominated application will then be reviewed by normally five members of the MH-CAREER panel. You will find the applications assigned to you as well as information on whether you are rapporteur or reviewer on the application in our review system Prisma. Please start working on the assessments as soon as the applications become available. They will be added continuously as soon as we receive them from the subject-oriented panels. After the meeting, the panel MH-CAREER shall submit a final overarching statement in Prisma for each nominated application motivating the final prioritisation. This is written by the rapporteur.

Your work as an individual reviewer

Your task as a reviewer is to assess the quality of the research project and the potential of the applicant. It is important to note that the overarching panel should not provide a full evaluation of the scientific quality of the nominated applications as this has already been done by the subject-oriented panels. The scientific quality should, however, be part of your evaluation.

Read each nominated application and its corresponding final statement from the subject-oriented panel. The final statment contains both grades for each base criteria as well as written

comments, identifying strengths and weaknesses of the application. Please take into account that the grading between the 19 subject-oriented panels is not automatically comparable.

As a panel member you need to categorise all assigned applications according to the categories listed below. An Excel document will be provided for this purpose.

Categories
1 (low priority)
2 (medium priority)
3 (high priority)

Guiding questions

Starting grants

For starting grant applications, you should also assess ***the potential of the applicant to become an independent researcher in Sweden.*** An important aspect is the probability of the applicant to establish him- or herself as a successful researcher in the future. The following guiding questions have been adapted to the starting grants:

- Does the applicant demonstrate the ability to formulate scientific questions that are clearly independent of the research the applicant performed as a doctoral student and postdoc, and the research of former advisors?
- Has the applicant shown the ability to work independently of former advisors?
- Has the applicant shown the ability to work in new (international) research environments, for instance during postdoctoral work?

Consolidator grants

For consolidator grant applications, you should also assess ***the potential of the applicant to become a consolidated independent researcher in Sweden.*** The applicant should have a scientifically interesting research idea, and be able to convert and conduct the research task and thereby move the frontiers of research forward, or fill in existing gaps in knowledge. The following guiding questions have been adapted to the consolidator grants:

- How significant is the applicant's scientific productivity, impact and other merits in a national and international perspective, in relation to the research area? Is the researcher internationally recognized and a leader in her/his research field, or show the potential to become so?
- Has the applicant shown the ability to work in new (international) research environments, for instance during postdoctoral work?
- Does the researcher have the ability to establish a creative research environment through her/his research leadership?

Letter of support from the higher education institution

Starting and consolidator grant applications are accompanied by a letter of support from the higher education institution (HEI), which should be used by the MH-CAREER panel as a boundary condition when ranking applications of similar quality. Please note that the subject-

oriented panels have not taken the letter of support into consideration when nominating applications.

The letter of support should contain the following information:

- A description of how the applicant's research programme fits into the research environment (research already in progress at the department).
- A description of the applicant's scientific independence.
- A description of how the applicant can contribute to the department's activities (research and education) based on their scientific and teaching competence.
- Information on the applicant's type of employment and funding of the employment throughout the grant period.
- A description of how the department will fulfil the applicant's need for premises, equipment and other infrastructure in order to carry out the planned research. FOR STARTING GRANTS: Statement on whether any type of additional funding (eg "startup package") will be offered to the applicant during the grant period.
- A description of the HEI's/department's plan for enabling the applicant's continued scientific qualifications as well as the development of their leadership and teaching competence.

Panel meeting and final recommendation

The panel meeting in October will start with a presentation of the preliminary categorization of the applications based on individual evaluations from the panel members. Each application is discussed according to the registration number in descending order. The panel agrees on a final categorization of the applications: 1 (low priority), 2 (medium priority) and 3 (high priority).

For the starting grants, a total of 30 applications, plus 10 reserves, can be recommended for funding. The reserves should be ranked.

For the consolidator grants, a total of 6 applications, plus 10 reserves, can be recommended for funding and should all be ranked.

Each applicant will receive the final statement from the subject-oriented panel.

In addition to this, all nominated applications will also receive a brief final statement justifying the prioritisation made by the MH-CAREER panel. This statement is written by the rapporteur and should be based on the guiding questions listed above. **The grading form for the final statements in Prisma contains a specific field for this statement ("Assessment by the overarching panel"). Please note that no other fields in the form should be filled in.**

Grant decisions

The Scientific Council of Medicine and Health decides on the funding of starting and consolidator grant applications in October. Until the decision has been made and published, there must be no disclosure of the results of any evaluation. If you recieve any complaints or questions regarding the review process, these should be referred to the research officer. If any such matter concerns the work of a review panel or a field-specific issue, the Secretary General may contact the review panel's chair for input before responding to the matter.

Time schedule for the review process

Please note that the time schedule is very tight and we kindly ask you to respect the deadlines. The deadlines are, however, preliminary and may be adjusted. Prismas bulletin board will provide you with updated information.

Time schedule

Date	Step in the review process
June 2	Deadline for reporting conflict of interest
Aug 28 – Sep 18	The 19 subject-oriented panels meet and nominate applications for starting and consolidator grants.
Sep 10 – 27	The nominated applications and final statements are continuously made available in Prisma.
late Sep	Rapporteur and reviewers are assigned for each application. An excel sheet will be provided for an individual categorising of applications.
Oct 6	A complete list of categorisations from each panel member is to be returned to the Swedish Research Council for compilation.
Oct 7	The compiled evaluations will be distributed to the review panel in preparation for the meeting.
Oct 9-10	Panel meeting.
Oct 23	Decision is taken by the Scientific Council of Medicine and Health
Oct 29	The grant decisions are published on www.vr.se

Appendix 1: The subject-oriented panels

Name of the panel		Date of the meeting
MH-01A	Molecular medicine basic disease mechanisms, cell- and molecular biology, biochemistry and genetics	3 – 4 September 2024
MH-01B	Molecular medicine basic disease mechanisms, cell- and molecular biology, bioinformatics, systems medicine and genomics	28 – 29 August 2024
MH-02	Molecular medicine and therapy basic disease mechanisms, biomaterials, biotechnology, pharmacology, pharmacy, toxicology and related research areas	10 – 11 September 2024
MH-03A	Immunity and inflammation immunity, inflammation, autoimmunity and transplantation and related research areas	28 – 29 August 2024
MH-03B	Immunity and inflammation immunity, inflammation, allergy, dermatology and related research areas	17 – 18 September 2024
MH-04A	Infection infection, primarily within bacteriology, mycology, parasitology and related research areas	17 – 18 September 2024
MH-04B	Infection infection, primarily within virology and related research areas	11 – 12 September 2024
MH-05	Circulation and respiration cardiology, clinical physiology, cardiovascular biology, pulmonology, nephrology and related research areas	27 - 28 August 2024
MH-06	Surgical disciplines anaesthesiology, intensive care, surgery, odontology, medical imaging, orthopedic surgery, radiology, urology and related research areas	27 – 28 August 2024
MH-07	Women's and children's health gynecology, obstetrics, pediatrics, perinatology, reproduction medicine and related research areas	10 – 11 September 2024
MH-08A	Cancer molecular cancer research, oncology and related research	17 – 18 September 2024

	areas	
MH-08B	Cancer and hematology molecular cancer research, oncology, blood disorders, haematopoiesis and related research areas	11 – 12 September 2024
MH-09	Endocrinology, gastroenterology and metabolism andrology, diabetes, hepatology, obesity, nutrition and related areas	27 – 28 August 2024
MH-10	Neurosciences neurosciences, neurodegeneration and related research areas	17 – 18 September 2024
MH-11	Neurology and sensory organs neurosciences, neurology, audiology, logopaedics, muscular disorders, neurophysiology, ophthalmology, rehabilitation medicine and related research areas	3 – 4 September 2024
MH-12	Mental health clinical addiction research, psychiatry, including compulsory care and forensic psychiatry, and related research areas	4 – 5 September 2024
MH-13	Health care sciences research with a patient focus such as occupational therapy, audiology, physiotherapy, gerontology, health psychology, logopaedics, reproductive health, nursing and related research areas as well as research with a broader focus on staff and organization such as evidence-based practice, health economics, health services research and related research areas	4 – 5 September 2024
MH-14A	Public health sciences research concerning population health and health in different groups and concerning factors and interventions that influence health, including research areas such as social medicine, occupational medicine, environmental medicine, global health, lifestyle and related research areas	11 – 12 September 2024
MH-14B	Public health sciences research concerning population health and health in different groups, with a focus on epidemiological studies based on existing data, e.g. in registries and cohort studies, and related research areas	3 – 4 September 2024

Appendix 2: The four base criteria, the overall grade and the rating scales used by the subject-oriented panels

The four base criteria and the corresponding guiding questions are as follows:

Scientific quality of the proposed research

- Is the research proposal relevant for medical research?
- Is the definition of the problems and proposed solutions clear and compelling?
- Do the study design, research questions and hypotheses meet the standard of the highest scientific quality?
- Are the hypotheses clearly defined and based on the appropriate literature and/or preliminary data?
- Are potential problems and alternative strategies identified and presented?
- Are methods, including data analysis and statistics, appropriate for the project and well described?
- Are the ethical considerations for the proposed project described and addressed properly? Does the applicant adequately consider risk/benefit/suffering and risk for humans, animals, nature and/or society?
- If sex and gender is described as relevant to the research project, has the applicant considered sex and gender in the description of the proposed work, for instance as part of preliminary data, the choice of samples or study population, or data analyses?

Especially for Starting grants:

- Does the applicant demonstrate the ability to formulate scientific questions that are clearly independent of the research the applicant performed as a doctoral student and postdoc, and the research of former advisors?

Novelty and originality

- Does the project extend or challenge current understanding, opinion or practice in its field?
- Is the project built on a unique combination of ideas, preliminary data, and different methodologies to create novel approaches to address the question at hand?
- Is there potential for creation of new knowledge, novel technologies, or new directions for research and advancement of the field?
- Will completion of the aims improve scientific knowledge, technical capability, and/or clinical practice?
- Does the researcher propose a line of research that has the potential to significantly advance current knowledge in the field or is he/she simply adding details to existing knowledge?

Merits of the applicant

- Does the applicant have sufficient research experience, expertise, level of independence and scientific network for implementation of the proposed project?
- How do the applicant’s academic qualifications and achievements relate to his or her career age?

- Does the applicant have a documented independent line of investigation?
- Does the publication record suggest a coherent line of investigation? Does the applicant report publications as senior author? Focus is on the most relevant and important publications and reports, with emphasis on quality rather than quantity.
- To what extent has the applicant previously demonstrated that he or she can successfully execute a research project?

Especially for Starting grants:

- Has the applicant shown the ability to work independently of former advisors?
- Has the applicant shown the ability to work in new (international) research environments, for instance during postdoctoral work?

Especially for Consolidator grants:

- How significant is the applicant's scientific productivity, impact and other merits in a national and international perspective, in relation to the research area? Is the researcher internationally recognized and a leader in her/his research field, or show the potential to become so?
- Has the applicant shown the ability to work in new (international) research environments, for instance during postdoctoral work?
- Does the researcher have the ability to establish a creative research environment through her/his research leadership?

A seven-point grading scale is used to evaluate the criteria the scientific quality of the project, novelty and originality, and the merits of the applicant:

Outstanding Exceptionally strong application with negligible weaknesses	**7**
Excellent Very strong application with negligible weaknesses	**6**
Very good to excellent Very strong application with minor weaknesses	**5**
Very good Strong application with minor weaknesses	**4**
Good Some strengths, but also moderate weaknesses	**3**
Weak A few strengths, but also at least one major weakness or several minor weaknesses	**2**
Poor Very few strengths, and numerous major weaknesses	**1**

Feasibility

- Considering the project as a whole, including participating researchers, does the applicant or project group have sufficient competence for completion of the project?
- Is the project leader's level of activity within the project sufficient with regard to the proposed research plan?
- Is the general design, including the time-frame, realistic for implementing the proposed project?
- Are the materials, methods (including statistics and/or power calculations), experimental models, and when appropriate patient/study cohorts adequate and well adapted to the hypothesis or research question?
- Does the applicant adequately consider relevant legal and formal requirements for the proposed research, such as ethical permits and guidelines?

A three-point grading scale is used:

Feasible	**3**
Partly feasible	**2**
Not feasible	**1**

For all criteria, you can choose "insufficient" if you consider the application insufficient to allow a reasonable evaluation to be for that criterion.

The Overall grade

Weigh together the above subsidiary criteria into an overall grade that reflects the review panel's joint assessment of the application's scientific quality. For Project grants, **Consolidator grants and Starting grants**, "Scientific quality of the project" should be given more weight in the overall grade. For Grants for research time, "Merits of the applicant" should be given more weight in the overall grade.

Appendix 3: Contact persons for the review panel MH-CAREER

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