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Purpose of this manual

The purpose of this manual is to provide reviewers with a step-by-step walk through of the adjudication process for the first Foundation Scheme Pilot. This manual is divided into three sections which correspond to the three stages of the adjudication process as illustrated in Figure 1.

Section 1 outlines the adjudication process for Stage 1 of the competition. It describes the responsibilities of reviewers participating in this stage, which includes the following: (1) preliminary review of the applications, (2) asynchronous online discussion, and (3) submission of the final rank list to CIHR.

Section 2 outlines the adjudication process for Stage 2 of the competition. It describes the responsibilities of reviewers participating in this stage, which includes the following: (1) preliminary review of the applications, (2) asynchronous online discussion, and (3) submission of the final rank list to CIHR.

Section 3 outlines the adjudication process for the final stage of the competition. It describes the responsibilities of reviewers participating in this stage, which includes the following: 1) pre-meeting activities, and 2) a face-to-face committee meeting.

Some reviewers may be invited to participate in both Stage 1 and Stage 2 if required. The Stage 3 face-to-face committee will be composed of reviewers who have not participated in the previous review stages.

In addition to reviewing the material in this manual, it is essential that peer reviewers read and become familiar with the Foundation Scheme: 2014 1st Live Pilot Funding Opportunity. All CIHR peer reviewers are also expected to:

- Agree to abide by CIHR's Confidentiality and Conflict of Interest Policy through ResearchNet;
- Ensure that all review materials are handled according to CIHR's Guide on Handling Documents used in Peer Review;
- Become familiar with CIHR funding policies and guidelines as outlined in CIHR’s Funding Policies. CIHR policies reflect areas of importance such as (but not limited to): Gender and Sex-Based Analysis, Knowledge Translation, Global Health Research and International Collaborations;
- Provide feedback on the adjudication process to CIHR via surveys as required.

For detailed regulations concerning all aspects of CIHR funding programs, please refer to the Grants and Awards Guide.

Figure 1. Overview of the Foundation Scheme Adjudication Process

Stage 1 – Caliber of the Applicant(s) and Vision and Program Direction
- Submit Stage 1 Application
- Complete Stage 1 Remote Review
- Match application to reviewers
- Results

Stage 2 – Quality of the Program and Quality of the Expertise, Experience and Resources
- Submit Stage 2 Application
- Complete Stage 2 Remote Review
- Match application to reviewers
- Results

Stage 3 – Final Assessment
- Face-to-Face Committee Meeting
- Selection
1 Section 1 – Adjudication Process for Stage 1

This section outlines the responsibilities of reviewers participating in the Stage 1 adjudication process. The adjudication process includes the following: (1) preliminary review of the applications, (2) asynchronous online discussion, and (3) submission of the final rank list to CIHR.

1.1 Preliminary Reviews of Applications

Stage 1 focuses on the Caliber of the Applicant(s) and the Vision and Program Direction.

Each application will be assigned to five reviewers, based on optimal matching between the application content and reviewer expertise. Each reviewer will receive between 15 and 20 applications. Reviewers will access their assigned applications through ResearchNet and complete their reviews remotely. It is expected that it will take approximately 1-2 hours to complete each review.

The application will be presented in a structured format to align with the adjudication criteria. Reviewers will also be asked to review the applicant(s) CV(s). Through their CV(s), applicants will highlight their recognitions, funding history, activities and contributions that best demonstrate their leadership, significant contributions and productivity in the context of their research field(s).

Reviewers will be asked to provide a rating and to justify the rating by briefly stating the strengths and weaknesses for each sub-criterion outlined in the table below. It is important for reviewers to clearly articulate the strengths and weaknesses as they will be used for two purposes: 1) to provide applicants with feedback and 2) to provide the other reviewers assigned to the application with a justification for the ratings and rankings given to the application.

The specific adjudication criteria are outlined in the table below.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Sub-criteria</th>
<th>What applicants have been asked to provide:</th>
<th>Questions for reviewers to consider:</th>
</tr>
</thead>
</table>
| Caliber of the Applicant(s) (75%) | Leadership (25%) | The applicant(s) will be asked to highlight their leadership experience. This should include a description that supports their reputation as a leader in their respective field(s), and should also include relevant and recent examples of major projects or research programs that they have led where effective leadership was evident. The applicant(s) will be asked to point to relevant, recent examples in their CV, as appropriate. In cases where more than one Program Leader is named on the application, the assessment will consider the joint leadership of the Program Leaders. | a) Is the applicant(s) widely recognized in their field, demonstrating a history of holding influential roles, inspiring others, mobilizing communities and advancing the direction of a field?  

b) Has the applicant(s) demonstrated the ability to successfully establish, resource, and lead/direct programs of research, which should include: securing the required resources, ensuring effective collaboration, and/or incorporating knowledge translation strategies? |
<table>
<thead>
<tr>
<th>Criteria</th>
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<th>What applicants have been asked to provide:</th>
<th>Questions for reviewers to consider:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance of the Contributions (25%)</td>
<td>The applicant(s) will be asked to highlight their contributions and the impact of those contributions on health and health research. The applicant(s) will describe the tangible benefits or positive influences of their prior contributions on health, health care, health systems and/or health research. The applicant(s) will be asked to point to relevant, recent examples in their CV(s), as appropriate. In cases where more than one Program Leader is named on the application, the assessment will consider the joint contributions of the Program Leaders.</td>
<td>a) Has the applicant(s) significantly advanced knowledge and/or its translation into improved health care, health systems, and/or health outcomes? b) Has the applicant(s) engaged, trained, and/or launched the career paths of promising individuals in research and/or other health-related non-academic fields?</td>
<td></td>
</tr>
<tr>
<td>Productivity (25%)</td>
<td>The applicant(s) will be asked to highlight both their lifetime and recent productivity, focusing on both the quality and quantity of research outputs. The applicant(s) will be asked to point to relevant, recent examples in their CV(s), as appropriate. In cases where more than one Program Leader is named on the application, the assessment will consider the joint productivity of the Program Leaders.</td>
<td>a) Has the applicant(s) demonstrated an outstanding level of research outputs based on prior work? b) Has the applicant(s)’ previous work generated high quality research outputs?</td>
<td></td>
</tr>
<tr>
<td>Vision and Program Direction (25%)</td>
<td>The applicant(s) will be asked to articulate a compelling vision and direction for their research program. This will require the applicant(s) to highlight the goal, overall objective(s), expected outputs/contribution(s), and describe the significance of the proposed program if the objectives are met. Foundation grants are meant to be flexible in order to allow the Program Leader(s) an opportunity to innovate, or explore new lines of inquiry. The information requested in this section is not intended to include details of each thematically-linked project within the program of research.</td>
<td>a) Are the vision, goal, overall objective(s), and potential contributions of the proposed research program well-defined and well-articulated in the context of a logical career progression for the Program Leader(s)? b) Is the vision forward-looking, creative, and appropriately ambitious? c) Does the vision aim to significantly advance knowledge and/or its translation to improved health care, health systems, and/or health outcomes?</td>
<td></td>
</tr>
</tbody>
</table>

Please note that in cases where multiple Program Leaders are applying together for one Foundation grant, the applicants will need to convincingly demonstrate synergy, a history of co-leading research and joint efforts on achieving tangible benefits and impact, as well as co-generation of research outputs.

Reviewers should take into consideration the career stage, research field and institution setting of all applicants when assessing each criterion. New/early career investigators may show evidence of leadership, contributions and productivity in different ways than established researchers. The evidence should be notable compared to peers in similar fields and career stages.
More guidance is provided for reviewers in the Interpretation Guidelines of Foundation Scheme Adjudication Criteria (Annex A), which outlines a set of interpretation guidelines for each criterion. These guidelines will be assessed after the first pilot and may be refined if required.

To ensure consistency, reviewers must adhere to a common adjudication scale. Note that granularity has been built into the top descriptors of the scale acknowledging that many of the ratings are likely to fall into this range. Reviewers are encouraged to use the full breadth of the scale and should use the increased granularity within the top descriptors to express differences within these categories. To facilitate this, the following scale including descriptors and definitions is provided:

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>O++</td>
<td>For this sub-criterion, the application excels in most or all relevant aspects. Any short-comings are minimal.</td>
</tr>
<tr>
<td></td>
<td>O+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>E++</td>
<td>For this sub-criterion, the application excels in many relevant aspects, and reasonably addresses all others. Certain improvements are possible.</td>
</tr>
<tr>
<td></td>
<td>E+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>G</td>
<td>For this sub-criterion, the application excels in some relevant aspects, and reasonably addresses all others. Some improvements are necessary.</td>
</tr>
<tr>
<td>Fair</td>
<td>F</td>
<td>For this sub-criterion, the application broadly addresses all relevant aspects. Major revisions are required.</td>
</tr>
<tr>
<td>Poor</td>
<td>P</td>
<td>For this sub-criterion, the application fails to provide convincing information and/or has serious inherent flaws or gaps.</td>
</tr>
</tbody>
</table>

As each review is completed, ResearchNet will automatically show a ranked list of the individual reviewer’s set of assigned applications based on the ratings (highest to lowest). Reviewers may make adjustments to their ratings until they are comfortable with the rankings, however, there will be no requirement to break ties at this stage of the adjudication process. Ultimately it is the application’s ranking that will determine its standing within the competition and will be used to make funding decisions.

The reviewers will then be asked to submit their preliminary reviews to CIHR in order to proceed to the next step.

1.2 Asynchronous Online Discussion

Once the preliminary reviews are submitted, the other reviewer’s reviews will be made available. Reviewers will be able to discuss each of their assigned applications with the four other reviewers who were assigned the same application. An asynchronous online discussion tool has been developed to allow reviewers to communicate with each other to share expert perspectives and to discuss any discrepancies.
The objective of the discussion will be to discuss and understand discrepancies in reviews. There will be no requirement to reach consensus. Each reviewer’s name and their preliminary review (ratings, written comments and ranking) will be visible for each application. If there are limited discrepancies in reviews, it is possible that a discussion may not be required.

The discussion period will last 72 hours and reviewers will be made aware of the planned discussion period for the competition well in advance of the deadlines. Reviewers may log in at any time during the discussion period and will not be expected to participate in online discussions simultaneously.

All five reviewers assigned to an application will be able to participate in the discussion as soon as all of the reviews for that application have been submitted. The discussion for all applications will open on the established deadline and it is therefore important to respect the established deadlines. Reviewers who have not submitted their preliminary reviews will not be able to participate in the discussion and this will be flagged in their online status.

A virtual moderator/chair will also be assigned to the application to moderate the discussion. The virtual moderator/chair will be tasked with ensuring that discussions take place if warranted, and may prompt reviewers to discuss. CIHR staff may also initiate a discussion, or provide input where necessary, to ensure that CIHR policies and procedures are followed.

Once the discussion for each application is complete, reviewers will be given the opportunity to make adjustments to their reviews as required. This may include changing their ratings, rankings and/or editing their comments.

It should be noted:

a. Every reviewer will have the ability to initiate a discussion thread. Every comment will be shared with every reviewer assigned to that application. Once comments are posted, reviewers will not be able to delete or edit them.

b. Reviewers will be able to post comments for the attention of CIHR staff; however they will be visible by the other reviewers.

c. A notification email will be sent daily to advise reviewers of new posts.

d. As applications are discussed, reviewers may feel the need to update their preliminary ratings and reviews. This can happen at any time both during and after the discussion period. These modifications will not be accessible to other reviewers.

e. A transcript of the online discussions will not be given to the applicants.

1.3 Submit the Final Rank List to CIHR

Once the asynchronous discussions are complete, reviewers will be asked to finalize their reviews and their individual ranked list. At this point, reviewers must break any ties in their individual ranked list. Once ties are eliminated, reviewers may modify the rank order of their assigned applications by moving the applications up or down the rank list. The original rank order will remain visible as a reference point. Once satisfied with the rank order of applications that they have been assigned, the reviewers will be asked to submit the final rankings to CIHR. Note that reviewers will not see the final ranked lists of other reviewers. At this point, the adjudication process for Stage 1 is complete.
Once all rankings have been received, CIHR will calculate a consolidated ranking for each application and compile a list of all applications in the competition ranked from highest to lowest. Each application will have five reviews, a ranking from each reviewer, a consolidated ranking and a standard deviation. CIHR will determine which applicants will be invited to complete a Stage 2 application based on the number of applications, consolidated ranking, standard deviation and funds available for the competition.

An overview of the Stage 1 adjudication process is outlined in Figure 2.

**Figure 2. Stage 1 Overview**

**Preliminary Reviews of Assigned Applications**

Reviewers will be asked to provide a rating for each adjudication criterion and to justify the rating by providing comments on the strengths and weaknesses. To ensure consistency, reviewers must adhere to a common adjudication scale. Note that granularity has been built into the top descriptors of the scale to allow reviewers to indicate finer differences between high quality applications.

The adjudication criteria are:

**Criterion 1: Caliber of the Applicant(s)**
- Leadership (25%)
- Significance of Contributions (25%)
- Productivity (25%)

**Criterion 2: Vision and Program Direction (25%)**

**Asynchronous Online Discussion**

Once the preliminary reviews have been submitted, the other reviewer’s preliminary reviews (ratings and comments) will be made available to reviewers who have been assigned the same application. Reviewers will be able to read the preliminary reviews and discuss each of their assigned applications with the four other reviewers who were assigned the same application. This is the reviewers' opportunity to share their expert perspectives, and to discuss any rating discrepancies in a virtual environment.

The virtual moderator/chair or CIHR staff may initiate discussions when there are large discrepancies between reviewer ratings.

Once the discussion for each application is complete, reviewers will be given the opportunity to make adjustments to their reviews as required. This may include changing their ratings, rankings and/or editing their comments.

**Submit the Final Ranked List to CIHR**

A reviewer’s applications will be ranked in order from highest-rated to lowest-rated based on the ratings given to the application by the reviewer. At this stage, some applications may be tied (i.e., have the same rank). The reviewer will be required to break these ties by moving one application ahead of the other.

Once the reviewer is satisfied with the ranked list of applications, he/she will submit the ranked list to CIHR. Once all ranked applications have been received, CIHR will compile a list of all applications in the competition ranked from highest to lowest.

The number of applications, consolidated ranking, and the standard deviation of each application, as well as the funds available for the competition will be used to identify which applications will be invited to complete a Stage 2 application.
2 Section 2 – Adjudication Process for Stage 2

This section outlines the responsibilities of reviewers participating in the Stage 2 adjudication process. The adjudication process includes the following: (1) preliminary review of the applications, (2) asynchronous online discussion, and (3) submission of the final rank list to CIHR.

2.1 Preliminary Reviews of Applications

Stage 2 focuses on the Quality of the Program and Quality of the Expertise, Experience and Resources.

Each application will be assigned to five reviewers, based on optimal matching between the application content and reviewer expertise. Each reviewer will receive between 10 and 15 applications. Reviewers will access their assigned applications through ResearchNet and complete their reviews remotely. It is expected that it will take approximately 4-5 hours to complete each review.

The application will be presented in a structured format to align with the adjudication criteria. Reviewers will be asked to provide a rating and to justify the rating by briefly stating the strengths and weaknesses for each sub-criterion outlined in the table below. It is important for reviewers to clearly articulate the strengths and weaknesses as they will be used for three purposes: 1) to provide applicants with feedback, 2) to provide the other reviewers assigned to the application with a justification for the ratings and rankings given to the application, and 3) to provide reviewers in the final stage with a justification for the ratings and rankings given to the application.

The specific adjudication criteria are outlined in the table below:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Sub-criteria</th>
<th>What applicants have been asked to provide:</th>
<th>Questions for reviewers to consider:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of the Program</td>
<td>Research Concept (20%)</td>
<td>The applicant(s) will be asked to articulate the program of research by outlining the goal, objective(s), and potential impact(s) of the proposed program.</td>
<td>a) Are the goal and objectives of the proposed program well-defined and well-articulated?</td>
</tr>
<tr>
<td>(40%)</td>
<td></td>
<td></td>
<td>b) Is there conceptual coherence within the program of research?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c) Are the potential program outputs significant? Are they likely to significantly advance health-related knowledge and/or its translation into improved health care, health systems and/or health outcomes?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Research Approach (20%)</td>
<td>The applicant(s) will be asked to articulate their research approach including:</td>
<td>a) Is the research approach appropriate to deliver on the proposed program objectives?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Potential challenges to the approach</td>
<td>b) Does the approach allow for flexibility in direction as the program evolves?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mitigation strategies that will be employed to overcome those challenges</td>
<td></td>
</tr>
<tr>
<td>Criteria</td>
<td>Sub-criteria</td>
<td>What applicants have been asked to provide</td>
<td>Questions for reviewers to consider</td>
</tr>
<tr>
<td>----------------------------------------------</td>
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<td>-----------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Quality of the Expertise, Experience, and Resources (60%) | Expertise (20%) | The applicant(s) will be asked to outline the collective expertise (disciplinary, professional or methodological) being assembled, and how it is appropriate to ensure the delivery of the objectives of the proposed research program. This includes the expertise and experience of the proposed Program Leader(s), as well as Program Expert(s) (e.g., researchers, technicians, knowledge-users, partners, patients and trainees, etc.). It is expected that the Program Experts may evolve over the duration of the grant, based on the needs of the proposed program. | a) Does the applicant(s) have the appropriate expertise and relevant experience to lead and manage the proposed program of research, considering its objectives and scope?  
   b) Is there an appropriate complement and level of engagement and/or commitment from key Program Expert(s)?  
   c) Does the approach include a high-level description of how progress and success will be measured?  
   d) Does the approach include a plan for identifying potential challenges and applying appropriate mitigation strategies? |
| Mentorship and Training (20%)            | The applicant(s) will be asked to articulate a Mentorship and Training Plan by outlining the rationale for the proposed training approach, potential challenges of the training/mentorship plan, as well as how progress and success will be measured. | a) Does the research program include a comprehensive mentorship and training plan for building capacity and positioning students, trainees, knowledge users, emerging scholars, and/or new/early career investigators for successful research careers and/or other career paths in non-academic health-related fields?  
   b) Does the proposed plan demonstrate an appropriate and innovative approach for meeting its objectives in relation to the program of research and the research field?  
   c) Does the plan include a strategy for identifying and mitigating potential challenges? |
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Sub-criteria</th>
<th>What applicants have been asked to provide:</th>
<th>Questions for reviewers to consider:</th>
</tr>
</thead>
</table>
| Quality of Support Environment (20%) | The applicant(s) will be asked to outline the resources that they currently have in place to ensure the successful delivery of the research program objectives. | a) Is the described environment(s) appropriate to enable the conduct of the program of research, and to manage and deliver on the objectives and key components of the proposed research program (e.g., research, knowledge translation, mentoring/training) through the provision of, or access to, the required infrastructure, such as:  
- Physical infrastructure (and/or other types of infrastructure such as consortia professional networks etc.)  
- Support personnel  
- Equipment  
- Specialized facilities  
- Supplies |

Reviewers should take into consideration the career stage, research field and institution setting of all applicants when assessing each criterion. The Program Leader's or Leaders' institution(s) must support the Program Leader as articulated in the [Grants and Awards Guide](#) and as may be further articulated within the application.

More guidance is provided for reviewers in the [Interpretation Guidelines of Foundation Scheme Adjudication Criteria](#) (Annex A), which outlines a set of interpretation guidelines for each criterion. These guidelines will be assessed after the first pilot and may be refined if required.

To ensure consistency, reviewers must adhere to a common adjudication scale. Note that granularity has been built into the top descriptors of the scale acknowledging that many of the ratings are likely to fall into this range. Reviewers are encouraged to use the full breadth of the scale and should use the increased granularity within the top descriptors to express differences within these categories. To facilitate this, the following scale including descriptors and definitions is provided:
As each review is completed, ResearchNet will automatically show a ranked list of the individual reviewer’s set of assigned applications based on the ratings (highest to lowest). Reviewers may make adjustments to their ratings until they are comfortable with the rankings, however, there will be no requirement to break ties at this stage of the adjudication process. Ultimately it is the application’s ranking that will determine its standing within the competition and will be used to make funding decisions.

Reviewers will also be asked to flag applications in ResearchNet that involve any of the issues outlined below. These issues are not to be considered as criteria for adjudication unless they impact the scientific quality of the application. For detailed regulations concerning these issues, please refer to the CIHR Grants and Awards Guide.

a) **Ethical and other policy requirements:** Responsibility for ensuring that all research meets ethical standards is delegated to the local institution by CIHR. Ethics forms are not required as part of the application. However, the reviewer may flag specific issues, such as the use of human participants, animals, human tissues or hazardous material, or research that appears to involve Aboriginal people, if they feel they have not been adequately addressed.

b) **Human pluripotent stem cell research:** Applications involving the use of human stem cells which will be funded will also be reviewed by the Stem Cell Oversight Committee (SCOC). Applicants are instructed to check the relevant box in the section entitled “Certification Requirements”, but it is essential that this be reviewed by reviewers.
c) **Section 56 of the Federal Controlled Drugs and Substances Act:** All research proposals that are subject to Section 56 of the *Controlled Drugs and Substances Act* are required to have an exemption from Health Canada. Reviewers should flag such applications to CIHR staff who will follow up before funds are released, if the application is funded.

### 2.2 Budget Assessment

Reviewers will be required to review the requested budget and justification. Applicants will be asked to submit their budget using a modular template with budget increments. Reviewers will also be provided with some historical information about the applicant’s open grant research funding history with CIHR. Note that this information is provided by the applicant at the time of application. Reviewers will be required to determine if the requested budget is appropriate to support the proposed program of research and if it is realistic and well-justified. Additionally, reviewers will be asked to assess the appropriateness of justification for requests that are higher than their historical grant levels.

Please note that the budget assessment must not be factored into the scientific assessment. Moreover, detailed scrutiny of each item will not be expected. Reviewers may recommend that the budget remain as requested or recommend an adjusted amount. If a reviewer adjusts the budget, he/she will be required to provide comments to justify their recommendation.

During the asynchronous online discussion reviewers will be required to discuss any discrepancies in their budget recommendations. In cases where a discrepancy still exists, the budget will be reconciled at the end of Stage 2 by CIHR staff and the virtual moderator/chair. The virtual moderator/chair may communicate with Stage 2 reviewers if there is a need for clarification.

Specific instructions are outlined in the table below:

<table>
<thead>
<tr>
<th>What applicants have been asked to provide:</th>
<th>Questions for reviewers to consider:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The applicant(s) will be asked to provide information regarding the budget request to support the proposed program of research, including the total amount requested and the amount requested per annum.</td>
<td>a) Is the requested budget appropriate in order to support the proposed program of research? Is it realistic and well-justified?</td>
</tr>
<tr>
<td>The applicant(s) will demonstrate that the amount requested is appropriate to support the proposed program of research, making sure to highlight funding history and/or any other sources of funding as appropriate.</td>
<td>b) If the request is significantly higher than the applicants historical grant levels, is it appropriately justified? Note: Justifications for CIHR funding to replace other on-going sources of funding (e.g., health charity, provincial funding agency) are not acceptable.</td>
</tr>
<tr>
<td>While the amount requested will not be factored into the scientific assessment of the application, reviewers will be asked to make a recommendation on the appropriateness of the funding request.</td>
<td></td>
</tr>
</tbody>
</table>

The reviewers will then be asked to submit their preliminary reviews to CIHR in order to proceed to the next step.
2.3 Asynchronous Online Discussion

Once the preliminary reviews are submitted, the other reviewer’s reviews will be made available. Reviewers will be able to discuss each of their assigned applications with the four other reviewers who were assigned the same application. An asynchronous online discussion tool has been developed to allow reviewers to communicate with each other to share expert perspectives and to discuss any discrepancies.

The objective of the discussion will be to discuss and understand discrepancies in reviews and budget recommendations. There will be no requirement to reach consensus. Each reviewer’s name and their preliminary review (ratings, written comments, budget recommendation and ranking) will be visible for each application. At this point, if any reviewer has suggested a change in the budget, this should also be discussed. If there are limited discrepancies in reviews, it is possible that a discussion may not be required.

The discussion period will last 72 hours and reviewers will be made aware of the planned discussion period for the competition well in advance of the deadlines. Reviewers may log in at any time during the discussion period and will not be expected to participate in online discussions simultaneously.

All five reviewers assigned to an application will be able to participate in the discussion as soon as all of the reviews for that application have been submitted. The discussion for all applications will open on the established deadline and it is therefore important to respect the established deadlines. Reviewers who have not submitted their preliminary reviews will not be able to participate in the discussion and this will be flagged in their online status.

A virtual moderator/chair will also be assigned to the application to moderate the discussion. The virtual moderator/chair will be tasked with ensuring that discussions take place if warranted, and may prompt reviewers to discuss. CIHR staff may also initiate a discussion, or provide input where necessary, to ensure that CIHR policies and procedures are followed.

Once the discussion for each application is complete, reviewers will be given the opportunity to make adjustments to their reviews as required. This may include changing their ratings, rankings and/or editing their comments.

It should be noted:

a. Every reviewer will have the ability to initiate a discussion thread. Every comment will be shared with every reviewer assigned to that application. Once comments are posted, reviewers will not be able to delete or edit them.

b. Reviewers will be able to post comments for the attention of CIHR staff; however they will be visible by the other reviewers.

c. A notification email will be sent daily to advise reviewers of new posts.

d. As applications are discussed, reviewers may feel the need to update their preliminary ratings and reviews. This can happen at any time both during and after the discussion period. These modifications will not be accessible to other reviewers.

e. A transcript of the online discussions will not be given to the applicants.
2.4 Submit the Final Rank List to CIHR

Once the asynchronous discussions are complete, reviewers will be asked to finalize their reviews and their individual ranked list. At this point, reviewers must break any ties in their individual ranked list. Once ties are eliminated, reviewers may modify the rank order of their assigned applications by moving the applications up or down the rank list. The original rank order will remain visible as a reference point. Once satisfied with the rank order of applications that they have been assigned, the reviewers will be asked to submit the final rankings to CIHR. Note that reviewers will not see the final rank lists of other reviewers. At this point, the adjudication process for Stage 2 is complete.

Once all rankings have been received, CIHR will calculate a consolidated ranking for each application and compile a list of all applications in the competition ranked from highest to lowest. In addition to the five reviews received in Stage 1, each application will have five reviews, a ranking from each reviewer, a consolidated ranking and a standard deviation for Stage 2.

CIHR will determine which applicants will be discussed at Stage 3 based on the number of applications, consolidated ranking, standard deviation and funds available for the competition. Based on the results from Stage 2, CIHR will identify the highest ranked applications that will be considered for funding at this stage. These applications will constitute the “green zone” and do not require further discussion.

A second set of applications will move to Stage 3. These applications will constitute the “grey zone”. The “grey zone” applications are those applications that were highly ranked and have a large standard deviation due to discrepancies in reviewer ranking.

The bottom-ranked applications will be deemed unsuccessful, and will not be considered for funding. A notice of decision will be provided to applicants who will not be considered for funding after Stage 2. The notice of decision for the remaining applications (green zone and grey zone) will be sent after Stage 3. Please note, CIHR is still finalizing the methodology that will be used to determine the zones.

An overview of the Stage 2 adjudication process is outlined in Figure 3.
**Figure 3. Stage 2 Overview**

**Preliminary Reviews of Applications**

Reviewers will be asked to provide a rating for each adjudication criterion, and then to justify the rating by providing comments on the strengths and weaknesses. To ensure consistency, reviewers must adhere to a common adjudication scale. Note that granularity has been built into the top descriptors of the scale to allow reviewers to indicate finer differences between high quality applications.

The adjudication criteria are:

**Criterion 1: Quality of the Program**
- Research Concept (20%)
- Research Approach (20%)

**Criterion 2: Quality of the Expertise, Experience, and Resources**
- Expertise (20%)
- Mentorship and Training (20%)
- Quality of Support Environment (20%)

**Budget Assessment**

Reviewers will be required to review the requested budget and the budget justification. Reviewers will be provided with some historical information about the applicant's open grant research funding history with CIHR. Reviewers will be required to determine if the requested budget is appropriate to support the proposed program of research, if it is realistic and well-justified.

Please note that the budget assessment must not be factored into the scientific assessment. Reviewers may recommend that the budget remain as requested or recommend an adjusted amount. If a reviewer adjusts the budget, he/she will be required to provide comments to justify their recommendation.

**Asynchronous Online Discussion**

Once the preliminary reviews have been submitted, the other reviewer's preliminary reviews (ratings and comments) will be made available to reviewers who have been assigned the same application. Reviewers will be able to read the preliminary reviews and discuss each of their assigned applications with the four other reviewers who were assigned the same application. This is the reviewers' opportunity to share their expert perspectives, and to discuss any rating discrepancies in a virtual environment.

Reviewers will be required to discuss any discrepancies in their budget recommendations. In cases where a discrepancy still exists, the budget will be reconciled at the end of Stage 2 by CIHR staff and the virtual moderator/chair. The virtual moderator/chair may communicate with Stage 2 reviewers if there is a need for clarification.

Once the discussion for each application is complete, reviewers will be given the opportunity to make adjustments to their reviews as required. This may include changing their ratings, rankings and/or editing their comments.

**Submit the Final Ranked List to CIHR**

A reviewer's applications will be ranked in order from highest-rated to lowest-rated based on the ratings given to the application by the reviewer.

At this stage, some applications may be tied (i.e., have the same rank). The reviewer will be required to break these ties by moving one application ahead of the other.

Once the reviewer is satisfied with the ranked list of applications, he/she will submit the ranked list to CIHR. Once all ranked applications have been received, CIHR will compile a list of all applications in the competition ranked from highest to lowest.

The number of applications, consolidated ranking, and the standard deviation of the applications, as well as the funds available for the competition will be used to identify which application will be discussed at Stage 3.
3  Section 3 – Adjudication Process for Stage 3

This section outlines the responsibilities of reviewers participating in Stage 3. The adjudication process includes the following: 1) pre-meeting activities, and 2) a face-to-face committee meeting.

This stage will be completed by one interdisciplinary committee. It is anticipated that the committee will comprise 13 to 15 reviewers covering the full spectrum of health research. The committee will include a Chair and Scientific Officer (SO). This committee will be responsible for integrating the results of the Stage 2 reviews and making recommendations on which "grey zone" applications should be funded. At this stage, new/early career investigators will be assessed and ranked against other new/early career investigators.

3.1 Pre-Meeting Activities

Prior to the face-to-face meeting, each committee member will be assigned a subset of between 10 and 15 applications and each application will be assigned to five committee members. It is expected that it will take approximately 1-2 hours to complete each review. For each application, the committee member will have access to information from Stage 2, including the reviews, the consolidated rankings, standard deviations and the full applications.

In order to help committee members differentiate between applications, a binning system will be used. Reviewers will be asked to assign applications to a “Yes” bin (to be considered for funding) or a “No” bin (not to be considered for funding). Each reviewer will be allocated a minimum number of applications that may be placed in the “Yes” and “No” bins. This number will depend on the funds available for a given competition. Committee members will be asked to submit their recommendations to CIHR prior to the meeting.

This information will be consolidated and the Chair of the committee will have an opportunity to review the recommendations from the committee members prior to the meeting. CIHR staff will prepare a schedule for the face-to-face committee meeting in consultation with the Chair and SO. An illustration of the process is provided in Figure 4.
3.2 Face-to-Face Committee Meeting

The interdisciplinary committee will be asked to make recommendations on which applications in the “grey zone” should be considered for funding. This meeting will be supported by electronic voting technology.

Prior to the meeting, CIHR will have compiled the results from the pre-meeting activities where committee members binned their assigned applications. At the meeting, committee members will see the grant applications ordered from highest-rated to lowest-rated according to a combination of the pre-meeting yes/no binning recommendations and Stage 2 results. Based on these results, CIHR will place the applications into one of three groups:

a. Group A (applications that the majority of the assigned committee members recommended should be funded)
b. Group B (applications for discussion at the meeting)
c. Group C (applications that the majority of the assigned committee members recommended should not be funded)

These groups are illustrated in Figure 5.
The meeting will start with the committee Chair asking the committee members to validate the groupings of applications. To validate, the committee Chair will ask if any committee member would like to move any of the proposed Group A or Group C applications into Group B so that they may be discussed by the committee. Once the committee is satisfied with the groupings, the Group A and Group C applications will be locked in and will not be discussed any further at the meeting.

Please note that an estimated funding cut-off line will be displayed within the list of Group B applications. This line is calculated using both the available budget for the competition and the budget requested in the grant applications. The estimated funding cut-off line is meant to be a tool to facilitate discussion and may not be entirely accurate as budget reductions may occur.

The committee should consider the estimated funding cut-off line when adding applications to Group B for discussion. For example, if only five grants will be able to be funded from the Group B pool, then it may not be effective or efficient to move 20 grants from Group C into Group B. However, the grant application budget should not be a factor in making recommendations for funding (i.e., should not be used to vote a high-budget grant out of the funding range in favour of more, but smaller-budget, grants). CIHR is committed to funding excellent applications.

The Chair will moderate the discussion of all Group B applications, and the SO will prepare the notes that summarize the key points discussed for each application.
For each application that is discussed, the following process will be used:

a. Any committee member in conflict with the application will be asked to leave the room.
b. The Chair will ask the five reviewers who reviewed the application to indicate whether they voted “Yes” or “No” during the pre-meeting activities.
c. The Chair will ask the assigned member(s) who voted the application “Yes” to start the discussion and then the member(s) who voted “No” to continue the discussion. The discussion will focus on the key points that led to their yes/no assessments.
d. Committee members not assigned to the application will be asked to contribute to the conversation by asking questions and adding their opinions/advice/expertise to clarify points of disagreement.
e. The SO will read the SO notes, which will capture the key elements of the discussion, to the committee for approval.

Once all of the applications in Group B have been discussed, members will be asked to vote on the Group B applications. Members will be provided with a maximum number of “Yes” votes (to be considered for funding). This maximum will be based on both the number of applications in Group B and the estimated funding cut-off line.

The committee Chair will go through the Group B applications one at a time, calling for a vote on each application. Using the electronic voting tool, committee members will vote either “Yes” or “No” for any application with which they are not in conflict. The Chair and SO will not be permitted to vote.

Committee members will be expected to adhere to the Conflict of Interest and Confidentiality Policy of the Federal Research Funding Organizations. While committee members will not be in the room during the discussion of the applications with which they are in conflict, they will not be asked to leave during the voting process. They will not be permitted to vote on any in-conflict applications, however, they will see the final rank order of all applications.

The committee will conclude its work after all the members have agreed on the applications they recommend for funding. These recommendations will be summarized and submitted to CIHR for the final review of budgets and the funding decision. Applicants will be informed of the results of the competition once CIHR’s Science Council has approved the grants to be funded. All applicants will be sent a Notice of Decision.

An important component of any peer review committee meeting is the final review of the committee’s effectiveness and functioning, as well as a discussion of policy issues that may have arisen in the course of its deliberations. This discussion is important as it provides an opportunity for CIHR staff to address any concerns of the committee members and for staff to record feedback on the piloted adjudication process.

This Foundation Scheme competition is a pilot. Applicants, research administrators and reviewers will be asked to complete surveys after each stage to provide their feedback. Feedback received through the surveys will help refine the design of the new Open funding schemes and peer review processes.
Annex A: Interpretation Guidelines of Foundation Scheme Adjudication Criteria

Canadian Institutes of Health Research
Overview

The purpose of this document is to provide reviewers with additional guidance regarding the adjudication criteria for the Foundation Scheme. The Foundation Scheme is designed to contribute to a sustainable foundation of health research leaders by providing long-term support for the pursuit of innovative and high-impact programs of research. Programs of research are expected to include integrated, thematically-linked research, knowledge translation, and mentoring/training components.

Foundation grants are designed to support research leaders at any career stage to build and conduct programs of health research across CIHR's mandate. Eligible applicants will include new/early-career, mid-career, and established researchers all of whom are independent researchers with a demonstrable track record of excellence and impact in their field of study.

The Foundation Scheme is supported by a three-stage competition and review process that focuses reviewer attention on specific structured review criteria at Stages 1 and 2.

Figure 1. Adjudication criteria for the Foundation Scheme at each stage of the competition and review process.
Stage 1 Adjudication Criteria Descriptors and Interpretation Guidelines

Stage 1 focuses on the caliber of the applicant(s) in the context of the qualities deemed essential to meet the objectives of the Foundation scheme. These qualities are: leadership, ability to deliver significant contributions, and productivity. Stage 1 also assesses the ability to define and articulate a clear and compelling vision and program direction.

In some cases, there may be multiple Program Leaders for a single Foundation grant. These applicants will need to convincingly demonstrate synergy and a history of co-leading programs of research. In these cases, the assessment of each adjudication criteria should only consider the Program Leaders’ joint research contributions.

Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess all applications keeping in mind the context of the applicant’s career stage, the applicant’s field of research, and other conceptual factors that are specific to the research field.

In the next sections each of the sub-criterion relating to the Caliber of the Applicant(s) and the Vision and Program Direction will be described in more detail. Reviewers will be reminded of what applicants were asked to provide in the application for the sub-criterion as well as the specific review questions that have been defined for each sub-criterion. A set of interpretation guidelines and considerations have also been summarized for each sub-criterion. These are intended to provide guidance to reviewers as they assess each section of the application.

Stage 1 - Criterion 1: Caliber of the Applicant(s)

Sub-criteria to be assessed under this criterion include:

1.1.1 Leadership
1.1.2 Significance of Contributions
1.1.3 Productivity

Stage 1 - Criterion 2: Vision and Program Direction

Sub-criteria to be assessed under this criterion include:

1.2.1 Vision and Program Direction
## Stage 1 - Criterion 1: Caliber of the Applicant(s)

### 1.1.1 Leadership

This sub-criterion is intended to assess the extent to which the applicant(s) has influenced and inspired others in his/her field of research, as well as the applicant(s)’ ability to effectively direct a program of research.

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<th>What Applicants have been Asked to Provide</th>
<th>Items for Reviewers to Consider</th>
<th>Interpretation Guidelines</th>
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<td>The applicant(s) will be asked to highlight their leadership experience. This should include a description that supports their reputation as a leader in their respective field(s), and should also include relevant and recent, examples of major projects or research programs that they have led where effective leadership was evident. The applicant(s) will be asked to point to relevant, recent examples in their CV as appropriate.</td>
<td>a) Is the applicant(s) widely recognized in their field, demonstrating a history of holding influential roles, inspiring others, mobilizing communities and advancing the direction of a field?</td>
<td>a) The applicant(s) should be widely recognized and respected in his/her research field. These individuals should have a considerable amount of experience in roles that influence the direction of their research field(s), and are held up as influencers at their institution and in their field. They have extensive experience building and/or mobilizing networks and communities.</td>
<td>While leadership over an applicant’s entire career should be considered, the focus of the evaluation should be on recent leadership experiences in order to support the notion that an applicant will likely continue to be a respected leader in their field throughout the tenure of a Foundation grant.</td>
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<td>b) Has the applicant(s) demonstrated the ability to successfully establish, resource, and lead/direct programs of research, which should include: securing the required resources, ensuring effective collaboration, and/or incorporating knowledge translation strategies?</td>
<td>b) The applicant(s) should demonstrate the ability to effectively lead/direct a program of research. An effective Program Leader should have experience:</td>
<td>While leadership over an applicant’s entire career should be considered, the focus of the evaluation should be on recent leadership experiences in order to support the notion that an applicant will likely continue to be a respected leader in their field throughout the tenure of a Foundation grant.</td>
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<td>• Developing and directing major projects, programs of research, and/or national or international networks;</td>
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<td>• Resourcing a program of research - including securing funding for research projects, attracting and retaining research personnel, acquiring appropriate infrastructure, etc.;</td>
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<td>• Building and managing collaborations (where appropriate); and/or,</td>
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<td>• Incorporating knowledge translation strategies and activities into a program of research, including the dissemination, application, and/or uptake of research findings where appropriate.</td>
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When assessing an applicant’s Leadership qualities, reviewers should also take the following items into consideration:

- **Career Stage**
  The breadth and depth of the applicant’s leadership experience should be assessed in the context of the applicant’s career stage. Early-career, mid-career, and established/ senior applicants should be compared to those at a similar career stage.

- **Field of Research**
  Leadership qualities may look different depending on the applicant’s field of research. Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be able to appropriately assess applications in the above contexts, as well as in the context of other
### What Applicants have been Asked to Provide

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<td>conceptual factors that are specific to the research field.</td>
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<td>Please note that in cases where more than one Program Leader is named on the application, the assessment should consider the joint leadership of the Program Leaders.</td>
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### 1.1.2 Significance of Contributions

This sub-criterion is intended to assess the extent to which the applicant(s)' contributions to date have had a tangible benefit, or positive influence on health, health care, health systems and/or health research. These contributions could include advancements in different research and health-related areas, as well as contributions to maintaining a sustainable foundation of health researchers. The nature and quantity of these advancements will depend on the applicant(s)' field of research and career stage.

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| The applicant(s) will be asked to highlight their contributions and the impact of those contributions on health and health research. The applicant(s) will describe the tangible benefits or positive influences of their prior contributions on | a) Has the applicant(s) significantly advanced knowledge and/or its translation into improved health care, health systems, and/or health outcomes? | a) In the research community, it is broadly recognized that research leaders contribute to the advancement/improvement of knowledge and research practice. Additionally, depending on the field of research, research leaders may also contribute to the advancement of health care, health systems, health outcomes, and economic prosperity. When assessing contributions consider the following:  
• Significant contributions to the advancement of knowledge (health or other fields) include advances or improvements to the current thinking in the field of research that have been sustained. | While the significance of an applicant’s career contributions should be considered, the focus of the evaluation should be on the significance of recent contributions in order to support the notion that an applicant will be able to continue to produce significant contributions throughout the tenure of a Foundation grant.  
When assessing the significance of an applicant’s contributions, reviewers should also take the following items into consideration: |
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| health, health care, health systems and/or health research. The applicant(s) will be asked to point to relevant, recent examples in their CV(s), as appropriate. | b) Has the applicant(s) engaged, trained, and/or launched the careers paths of promising individuals in research and/or other health-related non-academic fields? | b) In the research community, it is broadly recognized that research leaders contribute to the advancement of research capacity. | • **Career Stage**  
The *nature* of the applicant’s contributions should be assessed in the context of the applicant’s career stage. Early-career, mid-career, and established/ senior applicants should be compared to those at a similar career stage.  
• **Field of Research** Significant contributions may differ in nature depending on the applicant’s field of research.  
Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be able to appropriately assess applications in the above contexts, as well as in the context of other conceptual factors that are specific to the research field. Please note that in cases where more than one Program Leader is named on the application, the assessment should consider the joint contributions of the Program Leaders. |
### What Applicants have been Asked to Provide

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<td><em>Contributions to a sustainable foundation of health researchers from new/early career investigators may be different from those of established researchers and might focus more on efforts to build capacity (e.g., ability to attract students/trainees/emerging scholars, developing and implementing innovative mentoring/training opportunities, etc.).</em></td>
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<th>1.1.3 Productivity</th>
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<td>This sub-criterion is intended to assess both the quality and quantity of research outputs generated by the applicant(s).</td>
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<td>The applicant(s) will be asked to highlight both their lifetime and recent productivity, focusing on both the quality and quantity of research outputs. The applicant(s) will be asked to point to relevant, recent examples in their CV(s), as appropriate.</td>
<td>a) Has the applicant(s) demonstrated an outstanding level of research outputs based on prior work?</td>
<td>a) The applicant(s) should demonstrate an exceptionally high level of research outputs compared to investigators in a similar field and at a similar career stage.</td>
<td>While productivity over an applicant’s entire career should be considered, the focus of the evaluation should be on recent productivity in order to support the notion that an applicant’s high level of productivity is likely to continue throughout the tenure of a Foundation grant.</td>
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<td>b) Has the applicant(s)’ previous work generated high-quality research outputs?</td>
<td>b) The applicant(s)’ previous work should have produced research contributions that are recognized to be of high-quality within the research field. These outputs should be significant compared to investigators in a similar field and at a similar career stage.</td>
<td>When assessing an applicant’s productivity, reviewers should also take the following items into consideration:</td>
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<tr>
<td><strong>Career Stage</strong></td>
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<td>The applicant's productivity should be assessed in the context of the applicant's career stage. Early-career, mid-career, and established/senior applicants should be compared to those at a similar career stage.</td>
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<td><strong>Field of Research</strong></td>
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<td>High productivity levels may look different depending on the applicant's field of research. Reviewers will be selected based on their expertise in the applicant's field of research. Based on this expertise, reviewers will be able to appropriately assess applications in the above contexts, as well as in the context of other conceptual factors that are specific to the research field. Please note that in cases where more than one Program Leader is named on the application, the assessment should consider the joint productivity of the Program Leaders.</td>
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## Stage 1 - Criterion 2: Vision and Program Direction

### 1.2.1 Vision and Program Direction

This sub-criterion is intended to assess the applicant(s)' ability to define and articulate a clear and compelling vision. The assessment of the quality of the vision should consider the following characteristics:

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| The applicant(s) will be asked to articulate a compelling vision and direction for their research program. This will require the applicant(s) to highlight the goal, overall objective(s), expected outputs/contribution(s), and describe the significance of the proposed program if the objectives are met. Foundation grants are meant to be flexible in order to allow the Program Leader(s) an opportunity to innovate, or explore new lines of inquiry. The information requested in this section is not intended to include details of each thematically-linked project within the program of research. | a) Are the vision, goal, overall objective(s), and potential contributions of the proposed research program well-defined and well-articulated in the context of a logical career progression for the Program Leader(s)?  
 b) Is the vision forward-looking, creative, and appropriately ambitious? | a) The vision should establish and articulate the program direction that applies to the full duration of the grant in a coherent and clear fashion, presenting the key synergistic components of the program of research.  
 b) A forward-looking vision is future-oriented, and describes the proposed contribution(s) of the program of research (i.e., what the program intends to achieve in the short- and long-term). | Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess the vision of all applications in the context of the applicant’s career stage (in terms of the scope of the program), the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field. |
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<tr>
<td>c) Does the vision aim to significantly advance knowledge and/or its translation to improved health care, health systems, and/or health outcomes?</td>
<td>c) The vision of the research program should aim to achieve significant advancement in health-related knowledge, health research, health care, health systems, and/or health outcomes. This could be defined by the importance of the program (e.g., based on an assessment of the declared benefits, and their relation to any current issues, gaps and opportunities), as well as the significance of short-term and long-term research outcomes.</td>
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Stage 2 Adjudication Criteria Descriptors and Interpretation Guidelines

Stage 2 focuses on the quality of the proposed program of research, including the research concept, research approach, expertise and capacity building, as well as the supporting environment for the proposed research program.

Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess all applications in the context of the applicant’s career stage (in terms of the scope of the program), the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field.

In the next sections each of the sub-criterion relating to the Quality of the Program and the Quality of the Expertise, Experience and Resources, will be described in more detail. Reviewers will be reminded of what applicants were asked to provide in the application for the sub-criterion as well as the specific review questions that have been defined for each sub-criterion. A set of interpretation guidelines and considerations have also been summarized for each sub-criterion. These are intended to provide guidance to reviewers as they assess each section of the application.

Stage 2 - Criterion 1: Quality of the Program

Sub-criteria to be assessed under this criterion include:

2.1.1 Research Concept
2.1.2 Research Approach

Stage 2 - Criterion 2: Quality of the Expertise, Experience, and Resources

Sub-criteria to be assessed under this criterion include:

2.2.1 Expertise
2.2.2 Mentorship and Training
2.2.3 Quality of Support Environment
### Stage 2 - Criterion 1: Quality of the Program

#### 2.1.1 Research Concept

This sub-criterion is intended to assess the research component of the program, as well as the significance of the anticipated outcomes.

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| The applicant(s) will be asked to articulate the program of research by outlining the goal, objective(s), and potential impact(s) of the proposed program. | a) Are the goal and objectives of the proposed program well-defined and well-articulated?  
b) Is there conceptual coherence within the program of research?  
c) Are the potential program outputs significant? Are they likely to significantly advance health-related knowledge and/or its translation into improved health care, health systems, and/or health outcomes? | a) The goal and objectives of the program should be well-defined, and appropriate given the nature and scope of the program of research. There should be a sound, conceptual justification for the component parts and should be grounded in the relevant literature and/or previous results (as appropriate).  
b) The components of the program of research (including any relevant knowledge translation components) should be aligned with the overall goal and objectives of the program, and demonstrate an integration of concepts among components.  
c) The significance of the proposed program of research should be assessed in relation to other research in the field, and the relative need for the outputs and outcomes of the program of research. Reviewers should also assess the importance of the short-term and long-term anticipated outcomes, as it relates to the likelihood of significantly advancing health-related knowledge, health research, health care, health systems, and/or health outcomes. | Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess the research concept of all applications in the context of the applicant’s career stage (in terms of the scope of the program), the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field.  
The level of information provided by the applicant(s) to address this sub-criterion is expected to be presented at a high-level, and will not include details of each specific project within the program of research. Foundation grants are meant to be flexible in order to allow Program Leader(s) an opportunity to innovate, or explore new lines of inquiry. |
What Applicants have been Asked to Provide | Items for Reviewers to Consider | Interpretation Guidelines | Considerations
--- | --- | --- | ---
**International Considerations**
Note that CIHR contributes to, and supports, international research projects and international collaborations to address a range of research areas such as global health research issues, and to contribute to the development of health-research capacity both internationally and domestically. For these types of programs, demonstration of significance should focus on showing that the international component(s) is relevant to the goals and objectives of the program of research, and that the collaboration has the potential to improve health outcomes in the broader global community.

### 2.1.2 Research Approach

This sub-criterion is intended to assess the quality of the approach of the proposed program of research.

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| The applicant(s) will be asked to articulate their research approach including:  
  - Potential challenges to the approach  
  - Mitigation strategies that will be employed to overcome those challenges  
  - How progress and success will be measured | a) Is the research approach appropriate to deliver on the proposed program objectives? | a) The research approach encompasses a number of supporting elements. These elements should be well-planned, appropriate, and poised to deliver on the objectives of the program of research. A detailed research design and project-by-project plan for each thematically-linked project in the program of research is not expected. The applicants invited to submit this application in Stage 2 of the Foundation competition process have been selected based on their demonstrated past success in leading programs of research. They have proven themselves able to develop and implement detailed methodologies, techniques, etc. to bring research projects to fruition. Additionally, it is likely that program components, or projects planned for later in the program, will have less specificity, and applicants should not be penalized for this. | Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess the approach of all applications in the context of the applicant’s career stage (in terms of the scope of the projects described), the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field. |
| The applicant(s) will not be expected to provide extensive details on established methodologies; however, they should appropriately describe | b) Does the approach allow for flexibility in direction as the program evolves? | b) The approach should be:  
  I) flexible enough to explore new avenues of research; and,  
  II) poised to maximize contributions through appropriate collaboration and knowledge translation. | |
What Applicants have been Asked to Provide | Items for Reviewers to Consider | Interpretation Guidelines | Considerations
--- | --- | --- | ---
novel/innovative approaches. Foundation grants are meant to be flexible in order to allow the Program Leader(s) an opportunity to innovate, and explore new lines of inquiry. A detailed research design and project-by-project plan for each thematically-linked project in the program of research is not expected. | c) Does the approach include a high-level description of how progress and success will be measured? | c) There should be an appropriate plan to measure progress against key milestones. | The appropriateness of knowledge translation strategies will vary by research field. All knowledge translation strategies should be relevant to the context of the proposed program of research. |
d) Does the approach include a plan for identifying potential challenges and applying appropriate mitigation strategies? | d) There should be a high-level plan to identify and address any critical challenges or risks related to the key research and any knowledge translation components of the program. An exhaustive list is not required. |

**Mandatory Requirements (if applicable)**

Evidence demonstrates that biological, economic, and social differences between women and men contribute to differences in health risks, health services use, health system interaction, and health outcomes. Therefore, all applicants to CIHR are expected to integrate gender and sex considerations into their research design, where appropriate, in order to maximize the relevance and applicability of health research findings to both men and women.
Stage 2 - Criterion 2: Quality of the Expertise, Experience, and Resources

2.2.1 Expertise

This sub-criterion is intended to assess the expertise and experience of the Program Leader(s), as well as the proposed Program Expert(s) (see definition below) to collectively deliver on the objectives of the proposed program. It is the responsibility of the Program Leader(s) to ensure that the proposed research program is poised for success.

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<tr>
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<tr>
<td>The applicant(s) will be asked to outline the collective expertise (disciplinary, professional, or methodological) being assembled, and how it is appropriate to ensure the delivery of the objectives of the proposed research program. This includes the expertise and experience of the proposed Program Leader(s), as well as Program Expert(s) (e.g. researchers, technicians, knowledge-users, partners, patients and trainees, etc.).</td>
<td>a) Does the applicant(s) have the appropriate expertise and relevant experience to lead and manage the proposed program of research, considering its objectives and scope?</td>
<td>a) The roles and responsibilities the Program Leader(s) should be clearly described, and linked to the objectives of the research program.</td>
<td>Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess the expertise and experience of the set of applicants (Program Leader(s) and/or Program Expert(s)) described in the grant application in the context of the applicant’s career stage (in terms of the range of expertise and experts required), the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field.</td>
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Applicants invited to submit an application in Stage 2 of the Foundation competition process have been selected based on their demonstrated success in leading programs of research. They have proven themselves capable of mobilizing and securing the appropriate expertise to deliver significant contributions. Only a high-level overview of the expertise, experience, and resources is expected to address this sub-criterion for this Stage 2 application. The application should provide a description of the expertise and experience of the Program Leader(s) and Program Expert(s) as they relate to delivering on the objective of the proposed program, referencing the CVs of the proposed Program Leader(s) as required. The application should also include an overview of the other expertise assembled to undertake the program of research (i.e., “Program Expert(s)”); as well as a plan to seek out expertise (new Program Expert(s)) based on the anticipated future needs of the program of research. Program Expert(s) will not be submitting a CV with the Stage 2 application. In the case of complex or collaborative programs, an organizational structure may be appropriate.

The level of engagement (e.g., time commitment and contribution) of the Program Leader(s) should be...
2.2.2 Mentorship and Training

This sub-criterion is intended to assess the quality of the mentorship/training plan, through the demonstrated commitment to/level of engagement in shaping the future of the applicant(s)’ students, trainees, emerging scholars, and new/early career investigators, as well as other individuals in non-academic, health-related fields.

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<tr>
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<td>It is expected that the Program Experts may evolve over the duration of the grant, based on the needs of the proposed program.</td>
<td>b) Is there an appropriate complement and level of engagement and/or commitment from key Program Expert(s)?</td>
<td>appropriate based on the roles and responsibilities described. The organizational structure of the Program Leader(s) and any Program Expert(s) should be clearly described. There should be no gaps in expertise or ability to lead and deliver on the objectives of the proposed program.</td>
<td>application/uptake of the program outputs.</td>
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<tr>
<td>The applicant(s) will be asked to articulate a Mentorship and Training Plan by outlining the rationale for the proposed training</td>
<td>a) Does the research program include a comprehensive mentorship and training plan for building capacity and positioning students, trainees, knowledge users, emerging scholars, and/or new/early career</td>
<td>a) A comprehensive mentoring and training plan includes a combination of formal education, and informal mentoring, and training approaches. The plan should be coherently presented with training goals, learning opportunities, and key activities clearly articulated. Mentoring/training activities should focus on:</td>
<td>Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess the mentorship and training plan of all applications in the</td>
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<td>What Applicants have been Asked to Provide</td>
<td>Items for Reviewers to Consider</td>
<td>Interpretation Guidelines</td>
<td>Considerations</td>
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| approach, potential challenges of the training/mentorship plan, as well as how progress and success will be measured. | investigators for successful research careers and/or other career paths in non-academic health-related fields? | • Skill development (e.g., technical / methodological, oral and written, teaching, grants management, budgeting, research values and ethics, and, if appropriate, lab management)  
• Career development (e.g., preparation for research or non-academic careers) | context of the applicant’s career stage (in terms of the scope of the plan), the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field. |
| b) Does the proposed plan demonstrate an appropriate and innovative approach for meeting its objectives in relation to the program of research and the research field? | | | |
| c) Does the plan include a strategy for identifying and mitigating potential challenges? | b) The mentorship and training plan should be appropriate to the field and career stage of the Program Leader(s), as well as the nature and scope of the program of research, and the specific training level(s) (e.g., graduate students, trainees, emerging scholars, new/early career investigators, and/or health-related professionals). The benefits of the training and mentoring activities to the target audience should be clear. Program Leader(s) are expected to show direct involvement in all mentoring/training activities. | | |
| | c) The risk management strategy for the mentoring/training component of the program should describe any potential challenges to recruiting, retaining, or mentoring/training graduate students, trainees, emerging scholars, new/early career investigators, and/or health-related professionals (where applicable). There should also be an appropriate high-level plan to address any potential challenges related to the mentoring/training component of the program. | | |
| | | | Activities and collaboration with individuals from non-academic spheres is an important consideration. Non-academic professionals benefit from both interactions with and access to research resources, and training on use of these resources. The reverse is also true. |
### 2.2.3 Quality of Support Environment

This criterion is intended to assess whether the applicant(s) has the resources necessary in order to successfully deliver on the objectives of the research program in both the short- and long-term.

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<td>The applicant(s) will be asked to outline the resources that they currently have in place to ensure the successful delivery of the research program objectives.</td>
<td>a) Is the described environment(s) appropriate to enable the conduct of the program of research, and to manage and deliver on the objectives and key components of the proposed research program (e.g., research, knowledge translation, mentoring/training) through the provision of, or access to, the required infrastructure, such as:</td>
<td>a) Depending on the nature of the program, access to environments in other organizations may be essential to deliver on the objectives of the program. Reviewers should consider that appropriate support environments may be found within an institution, or may be built through &quot;networked&quot; environments or platforms outside of the host institution. Examples of other environments include, but are not limited to, hospitals, long-term care facilities, experimental facilities (e.g., Canadian Light Source, CERN, etc.), schools, First Nations communities, industry laboratories, prisons, foreign jurisdictions/locations, community populations, and specialized databases.</td>
<td>Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess the quality of the support environment of all applications in the context of the applicant’s career stage, the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field. For example, new/early career investigators should have access to appropriate mentorship.</td>
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<td>Physical infrastructure (and/or other types of infrastructure such as consortia, professional networks, etc.)</td>
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<td>Support personnel</td>
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<td>Equipment</td>
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<td>Specialized facilities</td>
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<td>Supplies</td>
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**Budget Recommendation**

The budget recommendation, including any written comments, is intended to assist CIHR in determining the appropriate funding levels for individual programs of research. The budget requested will not be factored into the scientific assessment of the application; however, CIHR values the experience and perspectives of reviewers in estimating the overall funding level that is appropriate for the proposed research program. Please note that a detailed item-by-item scrutiny is not expected.

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| The applicant(s) will be asked to provide information regarding the budget request to support the proposed program of research, including the total amount requested and the amount requested per annum. The applicant(s) will demonstrate that the amount requested is appropriate to support the proposed program of research, making sure to highlight funding history and/or any other sources of funding as appropriate. | a) Is the requested budget appropriate in order to support the proposed program of research? Is it realistic and well-justified?  
b) If the request is significantly higher than the applicant’s historical grant levels, is it appropriately justified? Note: Justifications for CIHR funding to replace other ongoing sources of funding (e.g., health charity, provincial funding agency) are not acceptable. | a) Appropriate high-level financial planning should be demonstrated and the requested resources, together with any existing resources, should be adequate to financially support the full scope of the research program. Applicants are required to justify that their request is appropriate in the context of their proposed program of research by providing their total financial requirement for the duration of their grant (5 or 7 years) and an amount for each of the identified categories defined by CIHR with a concise justification for their allocation. A precise valuation of each line item within the budget justification is not expected nor will it be provided by the applicants. Additionally, a yearly breakdown of funds will not be provided.  
b) Applicants with funding from CIHR must provide a robust justification for requests that are significantly higher than their historical grant levels.  
Applicants without a CIHR funding history should justify the appropriateness of their request in the context of their past funding history.  
New/early career investigators should not necessarily be expected to justify their request within their previous funding history (as it may not be robust enough to support their proposed program) and be given some latitude in their request as they ramp up their program.  
Justifications for CIHR funding to replace other ongoing sources of funding (e.g., health charity, provincial funding agency) are not acceptable. | Reviewers will be selected based on their expertise in the applicant’s field of research. Based on this expertise, reviewers will be asked to assess the budget request of all applications in the context of the applicant’s career stage (in terms of the appropriateness of the request), the applicant’s field of research, and in the context of other conceptual factors that are specific to the research field. Reviewers are asked to consider the proposed budget of the program, and provide a justified recommendation as to whether the financial allocation should be:  
- Accepted as described; or,  
- Adjusted to the level of $X per annum. |
In the process of working towards interpretation guidelines of Foundation Scheme adjudication criteria, CIHR consulted extensively with researchers from across all of CIHR’s research pillars. Working groups from each pillar contributed to the development of sample indicators of each of the following adjudication criteria: Leadership, Significant Contributions, and Productivity.

The list of sample indicators is provided below. The sample indicators are meant to be illustrative, and in no way represent a comprehensive list. Please also note the following:

a) The list of sample indicators describes a variety of examples from all of CIHR’s pillars. Therefore, not all of the items in the list will be relevant to each applicant.

b) The list may be updated over time based on feedback from the research community.

c) Reviewers will be selected based on their expertise in the research field of the applicant, and CIHR is depending on the reviewers’ expertise to determine whether the applicant has included the relevant indicators for each adjudication criterion, while also taking into consideration the applicant’s career stage, field of research, and other relevant conceptual factors.

### ANNEX A Leadership Sample Indicators

| Advisor in interdisciplinary or inter-organizational collaborations |
| Editorial experience |
| Innovator in existing or emergent areas of research |
| Leader of research endeavours with major impact |
| Leader of provincial, national and international collaborations, societies, associations, etc. within and outside the research community |
| Leader of community-based research and/or knowledge translation initiatives |
| Number and type of awards, honours, distinctions (note that these vary by research field) |
| Number and type of leadership roles/appointments (e.g., key note speaker, committee, advisory group, network, expert witness, appeals counsel, etc.) |
| Number, type and value of previous grants awarded |
| Number and value of salary awards received |
| Peer review committee service |

*For new/early career investigators, specific indicators to capture early evidence of leadership competency could also include:*

- Evidence of an emerging profile of innovation (e.g., development of new research methods)
- Nomination for awards, honours or distinctions
- Participation in advisory groups in interdisciplinary or inter-organizational collaborations
- Key role in significant research endeavours
- Significant involvement in key committees, local, national and international collaborations, societies, associations, etc.*
## ANNEX B Significant Contribution Sample Indicators

Note that the type of contributions listed may vary by research field. Note that for Stage 1 Applications, the applicant(s) has been asked to describe his/her contributions according to the following headings:

### Contributions to the Advancement of Knowledge (Health or other fields)
- Important advances in understanding (e.g., informing controversies, examining assumptions, advancing education theories, improving theoretical understanding in integrative research)
- Significant advances in knowledge (e.g., pathogenesis, cell differentiation, biological pathway, medical imaging, evaluation of cognitive functioning, gene-environment interactions, barriers to medication adherence, synthesis)
- Significant impact on a current area of research (e.g., paradigm shifts; challenges to current thinking)

**AND/OR**

### Contributions to Research (Health or other fields)
- Development of new areas of research
- Development of theoretical frameworks/models
- Development of research methods/techniques
- Benefit of sustained change in research practice (e.g., ethics considerations)
- Impact of new research approaches (e.g., multi-disciplinary approaches, horizontal (system-wide) research focus, etc.)

**AND/OR**

### Contributions to the Foundation of Researchers (Health or other fields)
- Number and types of domestic and international trainees mentored
- Increased ability to attract students/trainees/emerging scholars
- Implementation or broader uptake of innovative mentoring/training approaches
- Career success of mentees/trainees
- Success of mentees/trainees in working within both academic and non-academic spheres

**AND/OR**

### Contributions to Health Care
- Evidence-informed health care practices
- Evidence-informed health promotion and prevention programs
- Evidence-informed treatments, therapies, interventions or disease management approaches
- Evidence-informed health technologies, tools, diagnostics and devices
- Increased patient satisfaction
- Reduced burden of illness
## ANNEX B Significant Contribution Sample Indicators

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<tr>
<td><strong>Contributions to the Health System</strong></td>
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<td>Evidence-informed policies (health or other) that positively impact health</td>
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<td>Efficiencies from improved resource allocations or practices (e.g., cost savings, reduced wait times)</td>
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<tr>
<td>Improvements in health care data, information management and infrastructure</td>
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<tr>
<td>Reduced health inequalities in a specific population</td>
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<tr>
<td>Effectiveness of new or improved health care services, practices and regulations</td>
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<td>Improved health professional education policies or education system</td>
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<td>Cultural, organizational or pedagogical changes that have improved health professional competency</td>
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<td><strong>AND/OR</strong></td>
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<tr>
<td><strong>Contributions to Health Outcomes</strong></td>
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<tr>
<td>Improvements to the health status or quality of life of populations</td>
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<tr>
<td>Clinical outcomes of health research interventions</td>
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<tr>
<td>Incidence and prevalence of chronic and acute illnesses</td>
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<tr>
<td>Changes in culture, attitudes and behaviour that improve health</td>
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<tr>
<td>Public health awareness and education (documentaries, classroom/course material, and film)</td>
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<tr>
<td>De-bunking stereotypes/myths</td>
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<td><strong>AND/OR</strong></td>
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<tr>
<td><strong>Contributions to Economic Opportunities</strong></td>
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<tr>
<td>Business opportunities created</td>
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<tr>
<td>Creation of jobs from spin-off companies or from expansion of existing company</td>
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<tr>
<td>Sales/revenues generated or licensing returns</td>
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<td>New products, processes or services commercialized</td>
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<td>License or royalty agreements</td>
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### ANNEX C Productivity Sample Indicators

In the research community, it is broadly recognized that top researchers produce:

- Publications, peer-reviewed or other (e.g., theses, journal articles, books, book chapters, workshop reports, synthesis reports, dissemination reports, conference proceedings)

Other examples of research outputs, which vary by research area, include the following:

- Collaborations or networks
- Communication and knowledge translation products or resources
- Competency frameworks (e.g., health professionals)
- Conferences and conference proceedings
- Consultations
- Databases and evidence repositories
- Devices (e.g., medical, robotic)
- Editorial contributions
- Intellectual property claims
- Invention disclosures
- License agreements
- Media interviews (e.g., television, radio, print)
- Networking activities (e.g., workshops)
- Organization of meetings
- Patents (filed or obtained)
- Policy briefs
- Presentations at public forums
- Prevention or intervention programs
- Products
- Professional practices
- Programs or services
- Prototypes
- Public information, resources, and tools
- Software and hardware
- Spin-off companies
- Standards and guidelines
- Systems
- Theories, models or frameworks
- Tools, techniques, instruments, procedures or methods
- Training approaches/curricula