



CIHR IRSC

Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

Project Grant Competition
MOCK REVIEW TOOLKIT
College of Reviewers, CIHR

Discoveries for life



**PEER
REVIEW**



Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

Canada

At the Canadian Institutes of Health Research (CIHR), we know that research has the power to change lives. As Canada's federal health research funding agency, we collaborate with partners and researchers to support the discoveries and innovations that improve our health and strengthen our health care system.

Canadian Institutes of Health Research

160 Elgin Street, 9th Floor
Address Locator 4809A
Ottawa, Ontario K1A 0W9

www.cihr-irsc.gc.ca

© Her Majesty the Queen in Right of Canada (2020)

Cat. No. MR4-88/2020E-PDF

ISBN 978-0-660-35994-6

This publication was produced by the Canadian Institutes of Health Research. The views expressed herein do not necessarily reflect those of the Canadian Institutes of Health Research.

The Mock Review Toolkit is designed to simulate the Project Grant competition review process. The material in this document does not replace existing material online. The applications provided within the Toolkit are for information and learning purposes only, and serve as examples of what an application could contain.

Acknowledgements

We would like to thank the members of the Mock Review Toolkit Working Group for their invaluable input and feedback during the development of this Toolkit. We would also like to thank those applicants who kindly consented to having their applications included as part of the Mock Review Toolkit.

For more information or to obtain copies, please contact college@cihr-irsc.gc.ca.

TABLE OF CONTENTS

INTRODUCTION	4
Overview of Peer Review at CIHR	4
Types of Peer Review Processes	4
Adjudication Models.	4
Committee Members	5
Overview of the Project Grant Competition	
Mock Review Toolkit	5
How to Use This Toolkit	6
Purpose.	6
Facilitator.	6
Audience.	6
Selecting a Simulation	7
Simulation Objectives	8
Resources Required	8
PLANNING THE SIMULATION	9
Timelines	11
Discovery	11
Practice	12
Internal Review	13
Select Chair, Scientific Officers and Reviewers for Simulation	15
PRE-SIMULATION TRAINING	16
CIHR Peer Review from Submission to Decision: an Overview of the Process	17
CIHR Standards of Practice for Peer Review	20
Review Quality (RQA) Checklist	23
How to Review an Application	24
Rating Scale	25
Adjudication Criteria.	26
Budget Recommendation	30
Sex and Gender Based Analysis (SGBA)	31
Key Considerations for the Appropriate Integration of Sex and/or Gender	32
Assessing French Language Applications.	34
RUNNING THE SIMULATION	35
Conflict of Interest	35
Applications	38
Review Templates	39
Preparation and Room Set up	40
Run simulation	41
Roles, Responsibilities and Scripts	43
Facilitator.	43
Chair	43
Scientific Officer	44
Reviewers	46
Debrief and evaluation	47
Post-Meeting Evaluation Template	48

INTRODUCTION

OVERVIEW OF PEER REVIEW AT CIHR

Peer review refers to the process used by CIHR to review applications submitted for funding. Applications are assigned to reviewers who have (individually or collectively) the required experience and expertise to assess the quality and the potential impact of the proposed research and the research-related activities, within the context of the funding opportunity objectives. As applicable, CIHR invites experts with various perspectives from the health research community (e.g. health researchers, health related professionals, policy makers, community leaders, patients, citizens, etc.) to become members of a Peer Review Committee (PRC) to:

- evaluate applications submitted for a particular funding opportunity;
- rate them on their merit using a defined set of evaluation criteria so they can be ranked by CIHR in order of priority for funding; and,
- make recommendations on the budget needed to support the application.¹

Review committees make recommendations for funding to CIHR and partners, who in turn make the final funding decisions.

Types of Peer Review Processes

Committees typically run using two fundamental review processes: an in-person/teleconference meeting or a virtual review.



The **in-person meeting** is typical of the Project Grants competition – reviewers are assigned applications to review at-home before they convene to discuss and rate the applications via a face-to-face meeting or teleconference.



The **virtual review** is typical of the Doctoral Awards competition – reviewers complete an electronic, at home review only. Virtual reviewers do not discuss applications unless there are sufficient discrepancies in the reviewers' scores.

It is important to note that while representative of peer review processes at CIHR, additional design elements may be used based on the needs of the competition.²

Adjudication Models

Committees also use a variety of adjudication models to evaluate applications, with each funding opportunity usually incorporating more than one.

- 1. Relevance Review** is used when it is important for applications to be relevant to, or in alignment with, targeted research components of the Funding Opportunity (FO). The relevance review process typically takes place prior to the peer review process. Applications will be assessed using specific criteria and then those deemed relevant will proceed to the next step.
- 2. Scientific review** is the standard review mechanism for assessing the scientific excellence of proposals submitted to a competition. It uses a clear set of evaluation criteria to measure key aspects of the proposals in relation to the main scope and objectives of the FO.

1. <https://cihr-irsc.gc.ca/e/39380.html> 

2. <https://cihr-irsc.gc.ca/e/4656.html#2.2> 

3. **Merit review** is a type of review that uses separate scores or ratings for potential impact and scientific merit. In general, the potential impact score of an application reflects the importance of the project to the knowledge-users and the likelihood that it will have a substantive and sustainable impact on health outcomes, practice, programs and/or policy in the study context.³
4. **Iterative review** is a process used in the Project Grant Competition to review applications with a central focus on carrying out ethical and culturally competent research involving Indigenous peoples, with the intent to promote health through research that is in keeping with Indigenous values and traditions. These applications may be reviewed by the Indigenous Health Research (IHR) Committee. The IHR Committee may deem an application eligible for the Iterative Peer Review Process. The objective of the Iterative Peer Review Process is to allow applicants whose applications have been deemed excellent, the opportunity to provide minor clarifications that would see the application improved to become outstanding.⁴

Committee Members

A CIHR review committee typically consists of reviewers and usually a Chair and Scientific Officer, depending on the needs of the adjudication model. Individual committee members are selected for their knowledge, expertise and/or experience. PRC membership as a whole considers one or more of the following aspects:

- the need to cover the full range of research areas, relevant methodologies, key populations and experience for which the committee is responsible;
- the necessity for reviewing capability in both English and French so that applications in either official language can be evaluated by the committee; and,
- the need for regional representation and representation by gender proportionate to membership in the Canadian health research community.⁵

OVERVIEW OF THE PROJECT GRANT COMPETITION MOCK REVIEW TOOLKIT

**Note: While this toolkit focuses on the Peer Review process used in the Project Grant Competition, CIHR recognizes the need for additional resources that address the diverse needs of experts with various perspectives from the health research community and for those who review for other funding programs at CIHR. Additional resources will be developed in the future to meet these needs.*

The Mock Review Toolkit provides resources to create a Peer Review Committee and simulate the CIHR Project Grant Peer Review Process. While the Toolkit mimics the activities done in an actual peer review context, a key difference is that the application budget and term are not evaluated as part of the Mock Review. Similarly, a Facilitator is required to coordinate setup and execution, including the activities of the Chair(s), Scientific Officer(s), and Reviewers in preparation for the Peer Review simulation.

The Toolkit also provides the materials for a pre-simulation training session, including:

- the peer review process from the submission of an application to the final decision;
- the adjudication criteria and how to review an application;
- additional considerations in peer review (e.g. sex and gender considerations);
- Standards of Practice for Peer Review and quality assurance in peer review mechanisms and;
- reviewer roles and responsibilities.

3. <https://cihr-irsc.gc.ca/e/4656.html#2.3> 

4. <https://cihr-irsc.gc.ca/e/49564.html#4.2.4> 

5. <https://cihr-irsc.gc.ca/e/39380.html> 

HOW TO USE THIS TOOLKIT

Purpose

The purpose of the Toolkit is to support awareness of the peer review process at CIHR and to help develop and improve an individual's peer review skills. The Toolkit can stand alone as a guide and resource to organize and run a mock review simulation using the included applications, or as part of a larger internal review process. It is imperative that interested parties read the Toolkit in its entirety prior to planning and running a mock peer review simulation.

Please note: this toolkit is to be used as a resource and a guideline only; timelines and content may be adjusted according to the institutional needs.

Facilitator

A noteworthy addition to the roles and responsibilities required by the Mock Review Toolkit is in assigning a Facilitator. The Facilitator has a significant role early on and is responsible for organizing the session according to the information herein, coordinating applications and reviewers, and ensuring that everyone has the appropriate background information and documentation. During the simulation, the Facilitator could take on the role of Chair, if they have the requisite experience and no other person has been appointed to the role.

Specifically, the Facilitator will:

- provide all necessary documentation
- organize training and familiarization sessions as required
- discuss conflicts of interest
- clarify policies and/or administrative processes related to the Toolkit
- keep track of the time and include breaks during the simulation

Audience

This Mock Review Toolkit is designed for Research Institutions, CIHR Institutes, partners and others that are interested in facilitating a mock peer review session in order to improve understanding of how the peer review process at CIHR works. Trainees (pre- and postdoctoral) and new faculty as well as content experts and knowledge holders and users, are all examples of people who could participate in the mock review session.

SELECTING A SIMULATION

This toolkit is appropriate for any researchers who are unfamiliar with the details of CIHR peer review process irrespective of their career stage. Uses listed below are merely suggestions.

SIMULATION TYPE	DESCRIPTION	USES
Discovery Simulation	<p>This simulation is designed to provide a first glimpse of the peer review process at CIHR. All reviewers are asked to review the same application(s) prior to attending the simulation (sample applications are included in the Toolkit).</p> <p>Some or all of the pre-simulation training materials may be provided prior to or presented at the beginning of the simulation, followed by a breakout style review. During the review, reviewers will be divided into groups of 6-8, each with an experienced CIHR reviewer to act as the Chair. One reviewer will volunteer to act as the Scientific Officer and the group will discuss the application in a manner similar to a peer review committee meeting.</p> <p>Once all groups have completed their review and discussion, reviewers will reconvene into the larger group and have a more facilitated discussion and overview of the process.</p>	<p>This simulation can be used for a broad variety of audiences. The number of reviewers is limited by the number of available experienced CIHR reviewers that can act as Chairs. This simulation can accommodate most reviewers.</p>
Practice Simulation	<p>This simulation is designed to replicate a peer review committee at CIHR.</p> <p>Applications are assessed by three individual reviewers and each reviewer is provided with three (3) mock applications to review prior to attending the simulation (included in the Toolkit). The pre-simulation training can be provided as an in-person training or the materials can be provided to reviewers prior to the simulation.</p> <p>The simulation should be run with no more than 20 reviewers, a Scientific Officer and a Chair. Experienced reviewers should act as Chair and Scientific Officer for the committee.</p>	<p>This simulation is suited to trainees, postdoctoral fellows and early career researchers who would like to learn about the peer review process. The ideal committee size is 14 reviewers, with a recommended range of 6-20 reviewers in addition to the Chair and Scientific Officer.</p>
Internal Review Simulation	<p>This simulation is designed to be used as an internal review process. The facilitator would seek draft applications from their institution for use in the simulation.</p> <p>Reviewers must participate in the pre-simulation training prior to attending the simulation. Reviewers are then provided with up to three (3) applications within their area of expertise to review prior to attending the simulation. During the simulation reviewers discuss their assigned applications and provide additional comments on other applications if relevant.</p> <p>It is recommended that experienced CIHR reviewers act as Chair and Scientific Officer for the committee. Both the Scientific Officer and reviewer notes will be provided to the applicant following the review session.</p>	<p>This simulation is best suited for postdoctoral fellows and early career researchers who would like to gain insight and experience on the peer review process. The maximum number of reviewers recommended for this simulation is 10. Multiple sessions can be offered based on the volume of applications received for internal review.</p>

SIMULATION OBJECTIVES

All simulation types are designed to:

- increase knowledge and understanding of CIHR peer review process;
- improve understanding of what makes a high quality review;
- increase access to appropriate learning materials to prepare individuals for peer review and;
- improve grant writing skills.

RESOURCES REQUIRED

SIMULATION TYPE	TIME REQUIRED	NUMBER OF REVIEWERS
Discovery Simulation	<ul style="list-style-type: none"> ➔ Planning: ~4 weeks ➔ Simulation: 2-4 hours ➔ Reviewer preparation: ~1-2 hours ➔ Debrief and evaluation: ~1-2 hours 	<ul style="list-style-type: none"> <input type="checkbox"/> 1 facilitator <input type="checkbox"/> 1 experienced CIHR reviewer to act as Chair per 6-8 reviewers <input type="checkbox"/> Number of reviewers based on Chair availability
Practice Simulation	<ul style="list-style-type: none"> ➔ Planning: ~10 weeks ➔ Pre-simulation training: 4-6 hours ➔ Simulation: 2-4 hours ➔ Reviewer preparation: ~3-4 hours ➔ Debrief and evaluation: ~1-2 hours 	<ul style="list-style-type: none"> <input type="checkbox"/> 1 facilitator <input type="checkbox"/> 1 experienced CIHR reviewer to act as Chair <input type="checkbox"/> 1 experienced reviewer to act as Scientific Officer <input type="checkbox"/> Up to 20 reviewers
Internal Review Simulation	<ul style="list-style-type: none"> ➔ Planning: ~12-14 weeks ➔ Pre-simulation training: 4-6 hours ➔ Simulation: 3-4 hours ➔ Reviewer preparation: ~5-8 hours ➔ Debrief and evaluation: ~1-2 hours 	<ul style="list-style-type: none"> <input type="checkbox"/> 1 facilitator <input type="checkbox"/> 1 experienced CIHR reviewer to act as Chair <input type="checkbox"/> 1 experienced reviewer to act as Scientific Officer <input type="checkbox"/> Up to 10 reviewers

PLANNING THE SIMULATION



PLANNING OVERVIEW AND CONSIDERATIONS

STEPS	DESCRIPTION	NOTES
<p style="text-align: center; font-size: 24pt; font-weight: bold;">1</p>	<ul style="list-style-type: none"> □ Define goals to determine Mock Review Simulation type <ul style="list-style-type: none"> • Is the goal to provide an overview for individuals who have little experience with the peer review process at CIHR? If so, select the Discovery or the Practice Simulation. • Is the goal to conduct an internal review process for applications from your Institution that will be submitted to CIHR in order to improve application quality? If so, the Internal Review Simulation is more appropriate. □ Define the audience of the Mock Review Simulation <ul style="list-style-type: none"> • Will the simulation be an invitation only event or will it be open to those who are interested? • If it will be an open call, how many reviewers can you accommodate? • If the simulation is invitation only, who is the target audience? How will they be invited? □ Determine maximum number of reviewers <ul style="list-style-type: none"> • Considerations: how many applications will you review during the simulation? • Are you conducting the Discovery Simulation, Practice Simulation or Internal Review Simulation? <ul style="list-style-type: none"> > How much time do you want to dedicate to the simulation? □ Select which simulation will be used and review timelines □ Select Date, Time and Location <ul style="list-style-type: none"> • Select dates based on recommended timelines. • Ensure a date is selected for the pre-simulation training as well. • Select location based on number of reviewers in simulation. 	
<p style="text-align: center; font-size: 24pt; font-weight: bold;">2</p>	<ul style="list-style-type: none"> □ Identify facilitators, (Chair(s), Scientific Officer(s), speakers for training session etc.) <ul style="list-style-type: none"> • Who will be the lead facilitator for the simulation? • Who will be responsible for logistics and planning the simulation? • Select the Chair(s) and Scientific Officers based on their previous CIHR review experience. <ul style="list-style-type: none"> > Individuals who have fulfilled these roles for CIHR would ideally serve in these positions, but an experienced reviewer could also take on this role for the simulation. • Consider inviting guest speakers to the training session (e.g. individuals with previous CIHR peer review experience, individuals with expertise in Sex and Gender Based Analysis (SGBA) considerations etc.) to give an example of how peer review is conducted. 	

STEPS	DESCRIPTION	NOTES
3	<ul style="list-style-type: none"> <li data-bbox="280 304 1135 577"> <input type="checkbox"/> Promote Mock Review Simulation (if necessary) <ul style="list-style-type: none"> <li data-bbox="329 346 1135 441">• If the simulation will be open to anyone who is interested, promotion will be necessary, as will an application and selection process for mock peer reviewers. <li data-bbox="329 451 1135 577">• If the simulation will be an Internal Review Simulation, this promotion period is to promote the event and avoid conflicts by disclosing the members of the review committee to internal applicants. <li data-bbox="280 588 1135 724"> <input type="checkbox"/> Identify individuals to submit applications (if necessary) <ul style="list-style-type: none"> <li data-bbox="329 630 1135 724">• If the Internal Review Simulation is being used, identify how funding applications will be solicited, who will be contacted, and establish application submission deadlines. <li data-bbox="280 735 1135 798"> <input type="checkbox"/> Identify and invite guest speakers for pre-simulation training session (if applicable) 	
4	<ul style="list-style-type: none"> <li data-bbox="280 888 1135 1092"> <input type="checkbox"/> Select and invite reviewers <ul style="list-style-type: none"> <li data-bbox="329 930 1135 1024">• Send relevant information to reviewers including date, time and location for both the pre-simulation training and mock review session, as well as pre-simulation training materials. <li data-bbox="329 1035 1135 1092">• Have reviewers complete the Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers Form. <li data-bbox="280 1102 1135 1207"> <input type="checkbox"/> Select applications <ul style="list-style-type: none"> <li data-bbox="329 1144 1135 1207">• For the Internal Review Simulation, ensure applications and reviewer expertise align. 	
5	<ul style="list-style-type: none"> <li data-bbox="280 1297 1135 1329"> <input type="checkbox"/> Run pre-simulation training (optional) <li data-bbox="280 1339 1135 1371"> <input type="checkbox"/> Provide application(s) to reviewers 	
6	<ul style="list-style-type: none"> <li data-bbox="280 1455 1135 1486"> <input type="checkbox"/> Run simulation <li data-bbox="280 1497 1135 1528"> <input type="checkbox"/> Debrief and distribute post-simulation survey <li data-bbox="280 1539 1135 1570"> <input type="checkbox"/> Post-simulation feedback to applicants (if applicable) 	

TIMELINES

Discovery Simulation

APPLICATIONS:	Provided by the Toolkit
LENGTH:	4-8 weeks
REVIEWERS:	6-8 reviewers per Chair

TIMELINE

WEEK 1

- Identify date, time and location of event
- Determine maximum number of reviewers
- Draft high level timeline

WEEK 2

- Identify and invite Chairs
- Prepare promotional materials
- Plan registration logistics and deadline

WEEK 3

- Promote event

WEEK 5-6

- Event registration deadline
- Select reviewers
- Send confirmation email and materials, including conflict of interest and confidentiality agreement
- Send reviewers pre-simulation training material and application(s) for review

WEEK 7

- Reviewers write their reviews with provided templates

WEEK 8

- Run simulation
- Send simulation evaluation

Practice Simulation

APPLICATIONS:	Provided by the Toolkit
LENGTH:	9-11 weeks
REVIEWERS:	5-20

TIMELINE

WEEK 1

- Identify date, time and location of event (including pre-simulation training)
- Determine maximum number of reviewers
- Draft high level timeline

WEEK 2

- Identify and invite Chairs and scientific officers
- Prepare promotional materials
- Plan registration logistics and deadline

WEEK 3-5

- Promote event

WEEK 4-6

- Registration deadline
- Select reviewers
- Send confirmation email and materials, including conflict of interest and confidentiality agreement
- Invite reviewers to pre-simulation training (optional)

WEEK 6

- Pre-simulation Training
- Assign applications to reviewers

WEEK 7-8

- Reviewers write their reviews with provided templates

WEEK 9

- Run simulation

WEEK 10-11

- Send simulation evaluation

Internal Review Simulation

APPLICATIONS:	Provided by your institution
LENGTH:	13-15 weeks * must begin a minimum of 13-15 weeks prior to the Project Grant deadline
REVIEWERS:	5-10

TIMELINE

WEEK 1

- Identify date, time and location of event (including pre-simulation training)
- Determine maximum number of reviewers
- Draft high level timeline

WEEK 2

- Identify and invite Chairs and Scientific Officers
- Prepare promotional materials
- Plan registration logistics and deadline (for project grant applicants and for reviewers)

WEEK 3-5

- Promote event to Project Grant applicants

WEEK 4-5

- Registration deadline for grant applicants
- Select applications for review
- Promote event to reviewers

WEEK 6-7

- Registration deadline for reviewers
- Select reviewers
- Send confirmation email and materials, including conflict of interest and confidentiality agreement
- Invite reviewers to pre-simulation training (optional)

WEEK 8

- Pre-simulation training
- Assign applications to reviewers

WEEK 8-10

- Reviewers write their reviews with provided templates

WEEK 10

- Run simulation
- Review Scientific Officer notes

WEEK 11

- Reviewers provide feedback notes (in person) to Project Grant applicants. This includes both the reviewer and Scientific Officer Notes.

**Please note: this step should be conducted a minimum of 4 weeks prior to the application due date*

WEEK 12-13

- Send simulation evaluation

SELECT CHAIR, SCIENTIFIC OFFICERS AND REVIEWERS FOR SIMULATION

Please familiarize yourself with the responsibilities associated with each role
 (see the [Roles, Responsibilities and Scripts section](#))

ROLE	NUMBER REQUIRED PER GROUP	TASK	REQUIREMENTS
CHAIR	1	The committee Chair has the role of moderator during the committee meeting. It is the Chair’s responsibility to ensure that the review committee functions smoothly, effectively and objectively. The Chair maintains a positive, constructive, fair-minded environment, in which research proposals are evaluated.	The Chair should be an experienced reviewer who has participated in review for the Project Grant Competition at CIHR.
SCIENTIFIC OFFICER	1	Scientific Officer (SO) is responsible for supporting the Chair in his/her role during the committee meeting. The SO take official notes of the committee discussions for each application.	The SO should be an experienced reviewer who has participated in review for the Project Grant Competition at CIHR.
REVIEWER	Depends on simulation type	Reviewers are assigned applications to review, score and present at the face-to-face meeting. Applications undergoing internal review should be assigned up to three Reviewers. Reviewers will also participate in general committee discussion and provide scores for all other applications.	Reviewers would be individuals interested in gaining insight on the peer review process at CIHR.

PRE-SIMULATION TRAINING

(OPTIONAL)

The pre-simulation training materials are designed to help prepare reviewers for the mock review simulation. The materials can be emailed to reviewers prior to the simulation or can be offered as an in person training session. An in person training session should take approximately 4 hours.

The following subjects can be discussed in the training; they are meant to provide information related to the peer review process at CIHR but not everything discussed is included in the mock review simulation. Resources related to these items are provided below.

- [CIHR Peer Review - from Submission to Decision: an overview of the process](#)
- [Standards of Practice for Peer Review](#)
- [Review Quality Assurance Checklist](#)
- [How to Review an Application](#) including:
 - [Rating Scales](#)
 - [Adjudication Criteria](#)
 - [SGBA](#)
- [Additional Considerations in Peer Review: SGBA and French Applications](#)
- There is also relevant material in the Running the Simulation section including:
 - [Conflict of Interest and Confidentiality Agreement](#)
 - [Sequence of Steps during the Simulation](#)
 - [Roles, Responsibilities and Scripts](#)

All reviewers (including the Administrator) must complete the following learning modules, available on the CIHR College of Reviewers webpage:

- [Conducting Quality Reviews](#) (7 minutes)
- [Unconscious Bias in Peer Review](#) (19 minutes)
- [Assessing Sex and Gender Integration in Peer Review](#) (5 minutes)

Additional optional learning modules include:

- [Project Grant Competition: Peer Review Process Overview](#) (26 minutes)
- [Completing your Reviewer Profile](#) (9 minutes)

CIHR PEER REVIEW FROM SUBMISSION TO DECISION: AN OVERVIEW OF THE PROCESS

**Note: This overview is best presented by an experienced CIHR Reviewer.*

Peer Review Process⁶

The Project Grant peer review process involves the evaluation of applications by a group of reviewers who have (individually or collectively) the required experience and expertise to assess the quality and the potential impact of the proposed research as well as the research-related activities, within the context of the funding opportunity objectives. These reviewers are grouped into Peer Review Committees based on their expertise and the topics of applications submitted to these committees.

Peer Review Committees (PRCs) are responsible for:

- evaluating individual applications;
- rating each application;
- discussing applications at the face-to-face committee meeting and voting on applications;
- recommending a budget and term to support the proposed research if the application is approved

(Note: discussion of budget and term support is not currently covered by the Mock Review Toolkit)

For a step-by-step walk through of the peer review process and for information about the roles and responsibilities of committee members, please consult the [Peer Review Manual – Project](#). Applicants may wish to consult this document in order to better understand how reviewers will be instructed to evaluate their application(s).

Sex- and Gender-Based Analysis (SGBA) and Health Research

CIHR expects that all research applicants will include sex and gender into their research designs, methods, analysis and interpretation, and/or dissemination of findings within their research proposal when appropriate. SGBA is an approach that systematically examines sex-based (biological) and gender-based (socio-cultural) differences between men, women, boys, girls and gender-diverse people. The purpose of SGBA is to promote rigorous and reproducible science that is sensitive to sex and gender and therefore has the potential to expand our understanding of health determinants for all people. The [SGBA section of the CIHR website](#) contains helpful resources for applicants and peer reviewers alike, providing CIHR's definitions for sex, gender and SGBA, as well as information on applying SGBA to the development and assessment of research proposals.

Recruitment to Peer Review Committees (PRCs)

CIHR will extend invitations to members of the health research community to join specific Project Grant Peer Review Committees (PRCs), based on their area(s) of expertise. Reviewers will be recruited based on a set of [selection criteria](#) and in consultation with Committee Chairs and Scientific Officers. The Chairs also have a role in the selection of Scientific Officers.

Standing peer review committees have been established for the Project Grant competition. Committee core membership will be recruited for a term of service (typically 3 years, or 6 competitions). To maintain stability in membership, while providing a mechanism for membership renewal, a rotational system will be established for one third of the membership on a yearly basis. The membership may also be supplemented by additional members as required for a specific competition, based on the applications received and expertise needed for their review.

These terms will also address the benefits of renewing the membership so that new perspectives are continually incorporated into the peer review process.

⁶ <https://cihr-irsc.gc.ca/e/49807.html>

Application assignments to PRCs

Applications are initially assigned to the applicant's first choice committee. Based on information provided at registration, CIHR staff review the initial committee assignments; if the application pressure is too high in a particular committee, the committee will be split in two, in consultation with the Committee Chair and the two Scientific Officers

(*Note: for the simulation, only a single Scientific Officer is required).

Chairs and Scientific Officers are then asked to review the assignment of applications to their committee based on the [committee mandate](#). Applications may be reassigned if they are more appropriate (or more closely aligned) to the mandate of another committee and can be better assessed by that committee. The final authority for the assignment of applications to a peer review committee rests with CIHR.

Application assignments to reviewers

After confirming the assignment of applications to PRCs, applications are assigned to reviewers who identify any conflicts of interest that they may have and declare their ability to review the applications, in accordance with the [Conflict of Interest and Confidentiality Policy of the Federal Research Funding Organizations](#). The Committee Chair and Scientific Officers, along with CIHR staff, assign each application to three reviewers based on their declared level of expertise.

Peer review recruitment process

The Chairs of the College of Reviewers have endorsed selection criteria for the recruitment of Committee Chairs, Scientific Officers and peer reviewers for the Project Grant competition. CIHR will recruit Chairs, Scientific Officers and reviewers based on the criteria outlined below.

Committee Chairs and Scientific Officers⁷

Significant* Peer Review Experience

- Previous experience as a grant program Committee Chair or Scientific Officer; or significant previous experience as a peer review committee member for a grant program; and
- Past peer review performance met high standards (Chairs and Scientific Officers were engaged, followed appropriate policies, fulfilled their role well).

Independent Investigator status at a University or Research Institution.

Tri-council funding (or equivalent) has been held within the last 5 years.

*Significant experience includes participation in multiple review activities.

To meet the requirement of knowledge translation applications, a Committee Chair and the Scientific Officers may be recruited using a combination of the criteria above, as appropriate.



7 <https://cihr-irsc.gc.ca/e/49807.html>

Peer Reviewers

Research Experience

- Independent Investigator status at a University or Research Institution
- At least one recent federally funded (or equivalent) peer reviewed grant as a Principal Investigator

Review Experience



- At least two peer review roles at CIHR or other recognized organization
- Completion of a [training module on unconscious bias in peer review](#) 
- Completion of [learning modules on sex- and gender-based analysis in health research](#) 

Knowledge, Expertise and Lived Experience

- Expertise within CIHR's mandate

Knowledge Users will be recruited using a combination of the criteria above, as appropriate. Applications that are identified as having an integrated knowledge translation (iKT) component will be assessed by both researcher and knowledge user reviewers.

Peer review committee membership lists

[Peer Review committee membership lists](#)  for Project Grant competitions are posted online approximately 60 days after the competition [funding decisions](#)  have been published on the CIHR website.⁸

8 <http://www.cihr-irsc.gc.ca/e/49807.html> 

CIHR STANDARDS OF PRACTICE FOR PEER REVIEW

**Note: When reviewing for CIHR, all reviewers must sign and abide by the Standards of Practice for Peer Review. For the purpose of the Toolkit, it is sufficient that participants read through and understand the expectations therein. Please also view the link for [Confidentiality and Conflict of Interest](#) under 3: Principles of Peer Review at CIHR, below.*

CIHR seeks to achieve the highest standards of excellence and integrity in the practice and management of peer review and has put in place mechanisms to ensure that peer reviewers receive the ongoing support necessary to meet these standards.

The objective of the CIHR Standards of Practice for Peer Review agreement is to promote transparency and support review quality excellence by clearly outlining peer reviewer responsibilities. The Agreement consolidates all CIHR Peer Review Principles and Policies, providing individuals with the necessary information to participate in peer review in accordance with CIHR standards of excellence.

Competition Chairs, Scientific Officers and Reviewers will be asked to consent to the CIHR Standards of Practice for Peer Review Agreement prior to participating in peer review. Similar to the Conflict of Interest and Confidentiality Agreement, committee members who do not consent will not be able to participate in peer review for that competition.

1. Introduction

The CIHR peer review process is the cornerstone of recognizing and funding excellence in health research. The process relies on the contributions of thousands of dedicated volunteers and their efforts are grounded on displaying the highest qualities of professional integrity in all aspects of their CIHR-related activities. The following Standards of Practice outlines the benchmark standards that all reviewers in the peer review process must uphold.

2. Application of Standards of Practice for Peer Review

The Standards of Practice apply to individuals who participate in any form of peer review managed by CIHR, including, but not limited to: face-to-face, teleconference and virtual interactions and meetings.

3. Principles of Peer Review at CIHR

1. [Confidentiality](#)
2. [Conflict of Interest](#)
3. [Fairness](#)
4. [Transparency](#)

4. Committee members agree to the following:

A. Committee Member Preparedness

Chairs, Scientific Officers and Reviewers are expected to be familiar with and abide by the CIHR peer review process and the roles and responsibilities of each committee member, applicable to the assigned competition, as outlined within the Awards, Grants and Priority Driven Research competitions' [peer review manual](#) including policies impacting peer review such as sex and gender and Indigenous health research considerations.

B. Committee Member Performance

It is expected that Chairs, Scientific Officers and Reviewers adhere to the following general tenets that guide the relationship between all stakeholders in the peer review process:

- Treating applicants, other reviewers, committee executives and CIHR staff with respect and consideration.
- Supporting a collegial, inclusive and professional environment for CIHR peer review.
- Fostering an environment for scientific discourse and respectful discussion on the merits of the adjudicated applications.
- Ensure reliability in the process by being accountable for the accuracy of their communications with their peers and their written reviews to the best of their scientific knowledge.

C. Member Responsibilities


i. Responsiveness:

Reviewers are responsible for meeting the relevant competition timelines established and communicated by CIHR staff. Reviewers are also responsible to inform CIHR staff as soon as possible should they be unable to meet their commitments.

Examples of competition tasks for which established deadlines are to be met by reviewers

- Declaration of Conflicts of Interests and Ability to Review
- Predetermined dates for submitting reviews
- Responding to inquiries from Committee Chairs, Scientific Officers, and CIHR staff

ii. Review quality:

Reviewers are responsible for providing high quality reviews by reading and assessing the applications based on the competition's standardized evaluation criteria and application requirements. [Review quality](#)  is defined and operationalized at CIHR by the degree to which a written review meets the criteria specified below. Reviews of high quality meet each criterion:

- Appropriateness: Review comments are fair, understandable, confidential and respectful.
- Robustness: Review is thorough, complete and credible.
- Utility: Review provides feedback that addresses the needs of reviewers, applicants and funders.

iii. Participation at peer review meetings (various formats and if applicable):

- Attendance (Face-to-face/teleconference) - Participate in the peer review meeting (in-person, by phone or by computer) and provide advance notice to program staff of changes in attendance (i.e. absences, late arrivals, early departures).
- Contribution - Contribute constructively to committee discussions and adequately present the identified strengths and/or weaknesses influencing their application rating, when appropriate.
- Professionalism - Demonstrate appropriate and professional behavior:
 - > Work collaboratively and value a diversity of views and opinions; critiquing ideas rather than individuals.
 - > Avoid aggressive behavior, bias and/or discriminatory comments, and comments that could be construed as sarcastic, flippant or arrogant.
 - > Maintain confidentiality of the peer review process, including refraining from revealing committee details and reviewer identities through all forms of communication including the use of social media platforms.

D. Committee Member Evaluation (for select programs)

Reviewers agree to be assessed on their peer review contributions based on the committee member criteria listed above (4A-C). In certain cases, CIHR will implement strategies to best support reviewers and promote continuous improvement by providing feedback on review quality, participation and responsiveness as well as directing reviewers to resources that outline the criteria of high quality reviewer performance. CIHR will also provide opportunities for reviewers to respond to the feedback provided and work collaboratively to promote, foster and maintain a high standard of peer review.

CIHR will also capture data to recognize reviewers with outstanding peer review efforts. CIHR is dedicated to supporting, improving and recognizing reviewer performance, as well as ensuring integrity and excellence in the peer review process.⁹

9 <http://www.cihr-irsc.gc.ca/e/51645.html> 

REVIEW QUALITY (RQA) CHECKLIST

The following checklist was developed as a practical tool to assist reviewers to apply the [review quality criteria](#)¹⁰. Please refer to this checklist as you are writing your reviews.¹⁰

CRITERION	INTERPRETATION
<p>Appropriateness</p> <p>Review comments are fair, understandable, confidential and respectful.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Review respects the Conflict of Interest and Confidentiality Policy <input type="checkbox"/> Absence of comments that suggest bias against the applicant(s) due to sex, ethnicity, age, language, career stage, institutional affiliation, or geographic location <input type="checkbox"/> Review is original, and written in clear and understandable language <input type="checkbox"/> Absence of comments that can be construed as sarcastic, flippant or arrogant
<p>Robustness</p> <p>Review is thorough, complete and credible</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Review contains a detailed justification of each rating, including meaningful and clearly expressed descriptions of both the application strengths and weaknesses <input type="checkbox"/> Comments align with the given rating <input type="checkbox"/> Review addresses all applicable adjudication criteria and does not include information that is not relevant to the adjudication criteria <input type="checkbox"/> All comments on grant content are factually correct <input type="checkbox"/> Absence of statements which could put into question the reviewer's scientific knowledge or expertise
<p>Utility</p> <p>Review provides feedback that addresses the needs of reviewers, applicants and funders.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Review comments are constructive and may help applicants to improve their future submissions and/or advance their research <input type="checkbox"/> Review contains information that allows other reviewers to understand the reviewer's rating(s) <input type="checkbox"/> Review is detailed enough to be used by CIHR to evaluate and refine review process elements

¹⁰ <http://www.cihr-irsc.gc.ca/e/50788.html>

HOW TO REVIEW AN APPLICATION

Summary of Progress

This two-page document supports the research proposal by allowing applicants to:

- contextualize any results from research activities that support the current application.
- describe how the application fits within their overarching research program and why the requested funds are needed.
 - > this should include a clear outline how the current budget request is distinct from funds currently held (as applicable) or overlaps and/or differs from applications submitted to other funding agencies/ organizations (pending grants).
- indicate how COVID-19 has affected their research program.

Please note that the Summary of Progress is a narrative and not a detailed accounting of progress and funding. Details on funding can be found in the applicant's CV and the Summary of Progress complements/is complemented by other components of the application.

Summary of the Research Proposal

Reviewers provide a summary of the project to demonstrate their understanding of the research work that is being proposed.

Rating


Reviewers provide their initial rating for each application to one decimal place in advance of the peer review committee meeting. Note that reviewers are not bound by the initial rating and can change it during the peer review committee meeting.

Strength and Weaknesses of the Proposal

Reviewers also highlight the strengths and weaknesses of the proposal based on the evaluation criteria. Reviewers are encouraged to provide strengths and weaknesses for each evaluation criterion; strengths and weaknesses that contributed to the application rating **must be clearly articulated**, as they will be used to:

- provide the other reviewers assigned to the application with a justification for the rating given to the application
- provide applicants with feedback

Integration of Sex and/or Gender in the Research Proposal

Reviewers comment on whether the integration of sex (as a biological variable) and/or gender (as a socio-cultural determinant of health) is a strength, a weakness or not applicable to the proposal. Reviewers will also be asked to provide recommendations to the applicants on how they might improve the strength of their applications with respect to the integration of sex and/or gender. Resources to support this assessment can be found on the [CIHR website](http://www.cihr-irsc.gc.ca/e/49564.html) ¹¹.

11 <http://www.cihr-irsc.gc.ca/e/49564.html> 

Rating Scale

The rating scale is from 0.0-4.9. The table below outlines the rating scale and definitions. Reviewers are encouraged to use the full range of the scale.

DESCRIPTOR	RANGE	OUTCOME
Outstanding	4.5 – 4.9	The application excels in most or all relevant aspects. Any short-comings are minimal.
Excellent	4.0 – 4.4	The application excels in many relevant aspects, and reasonably addresses all others. Certain improvements are possible.
Good	3.5 – 3.9	The application excels in some relevant aspects, and reasonably addresses all others. Some improvements are necessary.
Fair	3.0 – 3.4	The application broadly addresses relevant aspects. Major revisions are required.
Poor	0.0 – 2.9	The application fails to provide convincing information and/or has serious inherent flaws or gaps.

Adjudication Criteria

In this section, each of the sub-criteria related to the concept and feasibility are described in more detail. A set of interpretation guidelines and considerations have been summarized for each sub-criterion. These are intended to provide guidance for the assessment of the application.

Of note, in the interpretation of the adjudication criteria, it is important to keep in mind that the research proposal may exert only a basic/mechanistic impact, which is as important as the translational impact. The impact does not only mean near-future clinical relevance. Reviewers should evaluate whether the work proposed will significantly advance the proposed area of research.

Reviewers provide one score that reflects all three evaluation criteria: (1) significance and impact of the research, (2) approaches and methods, and (3) expertise, experience, and resources. Our intention is to provide reviewers with flexibility to weight the criteria as appropriate based on their judgement given the context of the application being reviewed.

Criterion 1. Concept

- Significance and Impact of the Research

Criterion 2. Feasibility

- Approaches and Methods
- Expertise, Experience and Resources

Reviewers should take into consideration the career stage, research field and institution setting of the applicants when assessing each criterion. The evidence should be notable compared to peers in similar fields and career stages.

Criterion 1. Concept

Sub-criterion: Significance and Impact of the Research

1. Is the project idea creative?
 - The project idea is among the best formulated ideas in its field, stemming from new, incremental, innovative, or high-risk lines of inquiry; new or adapted research in Practice science, or health care, or health systems or health outcomes. When applicable, knowledge translation/commercialization approaches/methodologies should be considered, as well as opportunities to apply research findings nationally and internationally.
2. Is the rationale of the project idea sound?
 - The project rationale is based on a logical integration of concepts.
3. Are the overall goals and objectives of the project well-defined?
 - The overall goal and objectives of the project are well-defined and clear.
 - The goal states the purpose of the project, and what the project is ultimately expected to achieve.
 - The objectives clearly define the proposed lines of inquiry and/or activities required to meet the goal.
 - The proposed project outputs (i.e., the anticipated results of the project) are clearly described and aligned to the objectives.

4. Are the anticipated project contributions likely to advance basic health-related knowledge, or health care, or health systems or health outcomes?
 - The context and needs (issues and/or gaps) of the project are clearly described.
 - The anticipated contribution(s) (e.g. publishing in peer-reviewed journals) are clearly described, and should be substantive and relevant in relation to the context of the issues or gaps.
 - The anticipated contribution(s) are realistic, i.e., directly stemming from the project outputs, as opposed to marginally related.

Considerations

This sub-criterion is not intended to assess feasibility of the project, expertise of the team or the potential of success. These will be assessed under Criterion #2: Feasibility

Research should focus on addressing an issue (e.g., hypothesis or question, problem, need or gap) in any area across the spectrum of health (basic biomedical, health-related knowledge, health care, health systems, and/or health outcomes).

Depending on the nature of the project, it may have a research and/or knowledge translation / commercialization focus. Also, depending on the nature of the project, the rationale may be well-supported by evidence (e.g., literature review, previous findings, environmental scan, market analysis, stakeholder or partner input). However, this level of justification is not required for all types of projects (e.g., high-risk lines of inquiry).

In cases where projects have a primary implementation, or knowledge translation / commercialization (application and uptake of research findings) focus, the importance of the research should be validated as being substantive and relevant by stakeholders and partners, i.e., by those who could directly benefit from, or make use of, the project outputs.

Indigenous Health Research (IHR) committee Considerations

The proposed research must be relevant to First Nations, Inuit and/or Métis priorities and have the potential to produce valued outcomes from the perspective of First Nations, Inuit and/or Métis participants and Indigenous peoples more broadly.

Global Health Research

Projects that have a global health research focus, or include international collaborations, are eligible for support through the Project Grant program. CIHR welcomes all research, from fundamental to applied, with the potential to advance health-related knowledge, and/or improve health outcomes for Canadians and the broader global community.

Criterion 2. Feasibility

Sub-criterion: Approaches and Methods

1. Are the approaches and methods appropriate to deliver the proposed output(s) and achieve the proposed contribution(s) to advancing health-related knowledge, health care, health systems, and/or health outcomes?
 - The research and/or knowledge translation/commercialization approaches, methods and/or strategies are well-defined and justified in terms of being appropriate to accomplish the objectives of the project.
 - Opportunities to maximize project contributions to advance health-related knowledge, health care, health systems and/or health outcomes should be proactively sought and planned for, but may also arise unexpectedly.
2. Are the timelines and related deliverables of the project realistic?
 - Timelines for the project should be appropriate in relation to the proposed project activities. Key

milestones and deliverables should be aligned with the objectives of the project, and be feasible given the duration of the project.

3. Does the proposal identify potential challenges and appropriate mitigation strategies?
 - Critical scientific, technical, or organizational challenges should be identified, and a realistic plan to tackle these potential risks should be described. An exhaustive list is not expected.

Sex and Gender Considerations (if applicable)

Evidence demonstrates that biological and social differences between women and men contribute to differences in health risks, health services use, health system interaction and health outcomes. Accounting for sex and gender in health research has the potential to make health research more rigorous, more reproducible, and more widely applicable. CIHR expects that all research applicants will integrate sex and gender into their research designs when appropriate, as indicated on the [Sex, Gender and Health Research webpage](#) [↗](#). Resources to assist reviewers in their assessment of the integration of sex and gender in the research design are available on [CIHR's website](#) [↗](#).

Indigenous Health Research (IHR) committee Considerations

In addition to demonstrating scientific excellence (Western, Indigenous, or both), the proposed research approaches and methods must respect Indigenous values and ways of knowing and sharing, and abide by the [Tri-Council Policy Statement Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada](#) [↗](#), and/or Indigenous partnering community / organizational ethical guidelines, or clearly explain why other guidelines have been developed and agreed upon with the study governance body.

Other Considerations

- Applications submitted to the Project Grant competition may include an integrated knowledge translation approach or may have a knowledge translation focus, with at least one knowledge-user and one researcher. CIHR defines a knowledge user as an individual who is likely to be able to use the knowledge generated through research to make informed decisions about health policies, programs and/or practices. A knowledge user can be, but is not limited to, a practitioner, policy-maker, educator, decision-maker, health care administrator, community leader, or an individual in a health charity, patient group, private sector organization or media outlet.
- CIHR defines integrated knowledge translation as a way of doing research with researchers and knowledge users working together to shape the research process – starting with collaborations on setting the research questions, deciding the methodology, being involved in data collection and tools development, interpreting the findings and helping disseminate the research results.
- Designs, approaches, and methodologies will vary by project (e.g., field of research, target audience) and should include a knowledge translation approach, when applicable, that is appropriate to the nature of the project outputs.

Sub-criterion: Expertise, Experience and Resources

1. Does the applicant(s) bring the appropriate expertise and experience to lead and deliver the proposed output(s), and to achieve the proposed contribution(s)?
 - The applicant(s) should demonstrate the combined expertise and experience needed to execute the project (i.e., deliver the proposed outputs as well as achieve the proposed contribution(s)).
 - The roles and responsibilities of each applicant should be clearly described, and linked to the objectives of the project.
2. Is there an appropriate level of engagement and/or commitment from the applicant(s)?
 - The level of engagement (e.g., time and other commitments) of each applicant should be appropriate to the roles and responsibilities described.

3. Is the environment (academic institution and/or other organization) appropriate to enable the conduct and success of the project?
 - Project applicants should have access to the appropriate infrastructure, facilities, support personnel, equipment, and/or supplies to:
 - > Carry out their respective roles, and;
 - > As a collective, manage and deliver the proposed output(s), and achieve the proposed contribution(s).
4. Does the applicant adequately demonstrate productivity and progress of their research program?
 - In their Summary of Progress, the applicant should:
 - > Outline the most relevant accomplishments
 - > Demonstrate their productivity

Reviewers must assess productivity broadly (i.e., not just based on publications) and consider the applicant's context (e.g., career stage, leave history). CIHR has signed [San Francisco Declaration on Research Assessment \(DORA\)](#), which recognizes that scholarly outputs are not limited to published journal articles but can include a broader range of outputs. Reviewers are encouraged to include these in their assessments.

Indigenous Health Research (IHR) Committee Considerations

- Appropriateness of the team based on their overall scientific experience (Western, Indigenous, or both) and skills as well as their Indigenous community-based research experience, track record, relevance of past experience, including expertise related to Indigenous lived experience(s).

Other Considerations

- The required complement of expertise will vary by project. Applications with an integrated knowledge translation approach or knowledge translation focus must include knowledge users in defining/refining research questions, informing the research plan, conducting research, interpreting research findings, understanding the receptor community, leading dissemination activities, etc. Knowledge users may also be responsible, and accountable for the application/uptake of the project outputs. The nature, breadth and depth of the applicants' experiences and contributions should be assessed in the context of the applicants' career stages.
- Applicants that have taken leaves of absence in the past seven years (e.g., parental, bereavement, medical, or administrative leave) may include a PDF document (no page limits) to supplement the publication information for that equivalent period of time. Whatever length of time an applicant has taken off from research in the past seven years is the amount of time that they may include in the attachment. Note that leaves of absence should also have been included in the appropriate section of the CV. Reviewers should therefore review this document in order to ensure that they have an accurate profile of applicants' research activities and achievements.

Project environments should be assessed according to their ability to support the proposed project activities. Institutions often function as "networked" environments or interdisciplinary networks, which means there may be multiple satellite environments contributing to the support environment. Reviewers should consider that for smaller institutions, or affiliated research facilities where resources and/or services may be obtained through networks, or may be contracted out.

Budget Recommendation

*Please Note: The simulation includes similar activities to those done in an actual peer review context, however the budget and term **will not be evaluated as part of the simulation.***

The budget assessment must not be factored into the scientific assessment and must not influence the rating of applications. However, CIHR will seek the recommendation from the reviewers on the budgets and terms requested. For additional information, please see section [4.2.3 of the Project Peer Review Manual](#)[↗].



CIHR reserves the right to determine the final amount awarded to the grants

Sex and Gender Based Analysis (SGBA)


CIHR expects that all applicants will integrate sex and gender into their research designs, when appropriate. SGBA is an approach that systematically examines sex-based (biological) and gender-based (socio-cultural) differences between men, women, boys, girls and gender-diverse people. The purpose of SGBA is to promote rigorous science that is sensitive to sex and gender and therefore has the potential to expand our understanding of health determinants for all people.

What is expected of reviewers?

When assessing an application for the integration of sex and/or gender, Reviewers should:

- ❑ **Complete the training and access resources provided on the integration of sex and/or gender:**
 - [CIHR Sex and Gender Online Training Modules](#) 
 - [CIHR YouTube Video: Assessing Sex and Gender Integration in Peer Review](#) 
- ❑ **Read the section entitled “Other Project Information”** (see examples in the [Applications section](#) of the Toolkit) to gain general insight into the applicants’ consideration of sex and/or gender. Applicants use this section to indicate whether they have taken sex and/or gender into account in the research design, methods, analysis and interpretation, and/or dissemination of their findings, and to provide a brief justification for their decision.
(Please Note: this section only appears in more recent Project applications).
- ❑ **Critically assess the full** proposal to determine whether sex and/or gender was appropriately integrated throughout the application or if the exclusion of sex and/or gender was justified.
- ❑ Use the “Integration of Sex and/or Gender” section of the [Review Template](#) to **indicate whether the integration of sex and/or gender was a strength, a weakness or not applicable to the proposal**, as well as provide recommendations to the applicants on how they might improve their applications with respect to the integration of sex and/or gender.
- ❑ **Incorporate your assessment into the application’s overall grant score (if applicable)**. While there is no separate score associated with the assessment of sex and/or gender, reviewers should take sex and/or gender into consideration for the **Approaches and Methods sub-criterion** (if the reviewer deems sex and/or gender is applicable).

When in committee, reviewers should discuss the proposal’s integration of sex and/or gender **prior to reaching a consensus score** (see the section on [Running the Simulation](#) for further meeting details).

The [SGBA section of the CIHR website](#)  provides helpful resources for applicants and peer reviewers alike, including CIHR’s definitions for sex, gender and SGBA, as well as information on applying SGBA to the development and assessment of research proposals. The following section covers key considerations for the assessment of appropriate integration of sex and/or gender in a research proposal.

Key Considerations for the Appropriate Integration of Sex and/or Gender ¹²

Integration of Sex as a Biological Variable

It is recommended that applicants consider accounting for sex as a biological variable in basic science, clinical, health system and population health studies where appropriate.

Situations when sex is applicable:

The following key considerations apply for reviewers to rate the quality of integration of sex as a biological variable in the proposal, in order to meet standards for rigour and reproducibility in science, and to allow for the discovery of sex differences and their underlying mechanisms:

Strength:

- Clear articulation that the phenomenon, condition or disease under study has, or does not have, a different incidence or prevalence based on sex
- Inclusion or recruitment of male and female cells, tissues, animals or humans when studying models of disease that affect males and females
- Documentation and analysis of the sex of the cells, tissues, animals or humans used in the protocol
- Proposed experimental design that disaggregates results by sex
- Builds on what is already known about sex differences and sex-related mechanisms in the field of study

Weakness:

- Does not provide a compelling justification for a single-sex study
- Ignores observed sex differences already reported in the literature, or fails to build on published data in the design of the proposed studies
- Does not report the sex of the cells, tissues, animals or humans being studied
- Does not describe how sex will be accounted for and considered in the analysis plan
- Does not demonstrate a commitment to disaggregate the data by sex
- Conflates and/or confuses the terms sex and gender

Situations when sex may not be applicable:

The integration of sex as a biological variable **may not be applicable** in research involving:

- Pathogens grown in vitro in an acellular environment
- The pre-clinical design and application of some biomedical technologies

A reasonable explanation should inform the decision why it is not possible or relevant to account for sex as a biological variable.

Integration of Gender as a Social Determinant of Health

It is recommended that applicants consider accounting for gender as a sociocultural determinant of health in clinical, health system and population health studies where appropriate.

¹² <https://cihr-irsc.gc.ca/e/50835.html> 

Situations in which gender is applicable:

The following key considerations apply for rating the quality of integration of gender as a sociocultural determinant of health in the proposal as a strength or a weakness:

Strength:

- Literature review: reports what is known about gender, gender-theories, and/or intersectionality in the field of study, where relevant
- Methods: describes how gender will be measured or investigated in the population under study
- Recruitment method: addresses and mitigates bias
- Analysis: describes how gendered sub-groups will be compared and that the findings will be reported separately in the results section
- Implementation and knowledge translation plan: considers aspects affected by gender

Weakness:





- Reports that gender is irrelevant without adequate justification
- Does not measure gender within the population under study when it is possible and relevant to do so
- Does not describe how gender will be accounted for and considered in the analysis plan
- Does not demonstrate a commitment to disaggregate the data by gender and/or present suitable subgroup analyses
- Conflates and/or confuses the terms sex and gender

Situations when gender may not be applicable:

The integration of gender as a sociocultural determinant of health may not be applicable in research describing:

- Biomedical research studies that exclusively use cells, tissues and animals
- Certain single-sex studies using existing datasets
- Secondary data analyses where it is impossible to create a new gender variable

Resources for Assessing Sex and Gender

- [CIHR Sex and Gender Online Training Modules](#) 
- [CIHR YouTube Video: Assessing Sex and Gender Integration in Peer Review](#) 
- CIHR Resources for Applicants and Peer Reviewers: [How to Integrate Sex and Gender in Research](#) 
- [Sex and Gender Equity in Research \(SAGER\) Guidelines \[PDF \(567 KB\) - external link \]](#) 

Assessing French Language Applications

CIHR, as Canada's federal funding agency for health research:

- Is committed to supporting the development of official language minority communities (OLMCs) through investigator-initiated and priority-driven research funding programs. These programs may:
 - support research that studies the health determinants and specific needs of OLMCs;
 - support the generation and mobilization of knowledge on issues related to OLMCs (for example, access to health care/health services in the preferred official language, health status of OLMC populations); and
 - support health research projects led by OLMC researchers.

- Is committed to supporting the development of OLMCs by encouraging researchers to consider issues related to official languages and OLMCs in developing their research projects, whatever their research field.

- Encourages researchers to submit their funding applications in the official language of their choice.

As of 2019:

Applications submitted in French are allowed two additional pages of research proposal in the Project Grant Competition. This provision will ensure an equitable amount of space for applications written in either official language, as evidence demonstrates that documents written in French require approximately 20% more space than similar documents in English.

RUNNING THE SIMULATION

CONFLICT OF INTEREST

In order to provide a simulation experience similar to the peer review process, **all reviewers must sign the Conflict of Interest Form**, prior to receiving the applications. We ask that reviewers sign the conflict of interest and ability to review, and acknowledge that applications provided during the mock review process are for use only within the mock review simulation and should not be shared beyond the simulation. Please have the reviewers sign a copy of the “*Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers Form*” found below. It is the responsibility of the administrator to collect these prior to sharing any applications (either those provided in the Toolkit or applications for internal review).

Click for a printable copy of the [Conflict of Interest and Confidentiality Agreement](#)



Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers Form

The Canadian Institutes of Health Research (CIHR) must meet the highest ethical and integrity standards in all that it does in order to continue to merit the trust and confidence of the research community, the government and the public. CIHR peer reviewers and observers must meet the highest standards of ethical behavior to maintain and enhance public confidence in CIHR's ability to act in the public's best interest and for the long-term public good. Where a conflict arises between private and public interests, peer reviewers and observers will be expected to take the necessary measures to ensure that the public interest is protected.

*For participants in the mock review simulation, we ask that you read and sign the Conflict of Interest and confidentiality agreement, and agree not to share any of the applications outside of use beyond mock review. The signed document should be submitted to the facilitator prior to being given access to applications.

Please note, in some cases the conflict of interest clause may not be applicable.

The language has been included so that participants in the mock review toolkit have the opportunity to see what Peer Reviewers involved in the process at CIHR are required to sign.

Conflict of Interest

A Conflict of Interest is a conflict between a person's duties and responsibilities with regard to the review process, and that person's private, professional, business or public interests. There may be a real, perceived or potential conflict of interest when the peer reviewer or observer:

- would receive professional or personal benefit resulting from the funding opportunity or application being reviewed;
- has a professional or personal relationship with an applicant or the applicant's institution;
- has a direct or indirect financial interest in a funding opportunity or application being reviewed; or
- is currently under investigation for an alleged breach of Funding Organization policies.

A conflict of interest may be deemed to exist or perceived as such when peer reviewers or observers:

- are applicants within the competition and have ability to bias or influence the process to the benefit of their application¹³.
- are a relative or close friend, or have a personal relationship with an applicant;
- are in a position to gain or lose financially/materially from the funding of an application;
- have had long-standing scientific or personal differences with an applicant;
- are currently affiliated with an applicant's institution, organization or company—including research hospitals and research institutes;
- are closely professionally affiliated with an applicant, as a result of having in the last six years:
 - frequent and regular interactions with an applicant in the course of their duties at their department, institution, organization or company;
 - been a supervisor or a trainee of an applicant;
 - collaborated, published or shared funding with an applicant, or have plans to do so in the immediate future; or been employed by the institution, when an institution is the applicant; and/or feel for any reason unable to provide an impartial review of the application.

Note: For trainee awards committees, these criteria also apply to the relationship with the proposed supervisor.

CIHR reserves the right to resolve areas of uncertainty and to determine if a conflict exists.

Disclosure and Compliance Measures

Any peer reviewer or observer who becomes aware of a conflict of interest must promptly disclose the conflict to CIHR staff. CIHR will determine if it constitutes a conflict of interest and what measures – such as recusal – are required. No peer reviewer or observer may participate in the review process of an application with which he/she is in conflict of interest. The conflict of interest depends on the role and level of involvement of a peer reviewer or observer and the size of the research team. Such disclosures and compliance measures shall be documented and retained for the record. Please note: in the case of the Toolkit, any perceived conflicts of interest should be disclosed to the administrator/facilitator.

Confidentiality

CIHR is subject to the *Privacy Act, and the Access to Information Act*. These laws govern the collection, use and disclosure of information under the control of the federal government and certain federally funded organizations. Documentation submitted to CIHR by the applicant may be provided to peer reviewers and observers. The documentation may contain personal information and confidential commercial information. By law, applicants have the right of access to the information provided by peer reviewers about their applications. The names of peer reviewers must be kept confidential during the review process to ensure they can provide an impartial review of an application. Peer reviewer names are made available 60 days after the publication of funding decisions; this process is solely at the discretion of CIHR. Written materials used in the review process are generally made available to applicants when they are notified of the funding opportunity results.

Peer reviewers and observers must ensure that:

- all documentation and information that CIHR entrusts to peer reviewers and observers is maintained in strict confidence at all times. It must be used only for the purpose for which it was originally collected – namely, to review applications and make funding recommendations as applicable;

13 For high volume competitions CIHR may ask applicants to act as reviewers. In these cases, the peer review system utilized will mitigate against an attempt to impact and/or influence competition rankings through negative scoring of competitive applications. Competition results will be routinely monitored for scoring patterns that deviate from the norm.

- review documentation is stored in a secure manner to prevent unauthorized access. It must be transmitted using secure techniques and when it is no longer required, it must be destroyed in a secure manner. Any loss or theft of the documentation must be reported to CIHR; and
- all enquiries or representations received by peer reviewers or observers about an application or its review must be referred to CIHR. Peer reviewers or observers must not contact the applicants for additional information or disclose matters arising from the review process to the applicants. Please note, this does not apply in instances related to internal review for the mock review toolkit.

Additional requirements for peer reviewers and observers:

- Review deliberations are confidential. Comments made during the review of an application and any related summaries or conclusions must never be discussed or disclosed with individuals not involved in the review process unless required by legislation or the courts.
- The identity of successful applicants and the details of the grants/awards must remain confidential until a decision is made by CIHR and officially announced to the applicants and the public. The identities of unsuccessful or ineligible applicants are not made public and must not be divulged unless required by legislation or the courts.
- During any meetings held, observers must be as unobtrusive as possible to minimize disruption and must not remove from the meeting room written notes or documentation related to reviewer assignments, ratings or reviewer comments on applications.

Confirmation

I have read and understood the *Conflict of Interest and Confidentiality Agreement*. I agree to comply with the requirements of the [Conflict of Interest and Confidentiality Policy of the Federal Research Funding Organizations](#). (Additional information can be found in procedural guidelines for the specific review process.) I understand that any breach of this agreement will result in a review of the matter, with CIHR reserving the right to take appropriate action including, but not limited to, my removal from peer review service. The use of review documentation for any other purpose than intended could result in a CIHR investigation and/or report to the federal Privacy Commissioner’s Office. Any action that CIHR may or may not take will not prevent a person whose privacy rights have been compromised from seeking legal action against the respondent. By signing this form, I certify that I am not currently ineligible to apply for and/or hold funds from the Canada Foundation for Innovation (CFI), the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), the Social Sciences and Humanities Research Council of Canada (SSHRC) or any other research or research funding organization worldwide for reasons of breach of policies on responsible conduct of research – such as ethics, integrity or financial management policies. Similarly, I also certify that I am not currently under investigation for a breach of such policies. If I become the subject of such an investigation, I will immediately withdraw from participation in the CIHR review process(es) until the investigation is complete and CIHR has determined that I am once again eligible to participate.

I agree to take personal responsibility for complying with these requirements.

NAME (please print)

SIGNATURE

DATE

APPLICATIONS

Sample applications are provided (see Annex X). If you are providing sample applications please select applications from the pillar appropriate to the expertise of the reviewers. If the Internal Review Simulation is being conducted, applications will be provided by the facilitator.

REVIEW TEMPLATES

The review templates should be provided to reviewers along with the applications.

Please note: these review templates are not used in the Project Grant competition, and are only provided for training purposes.



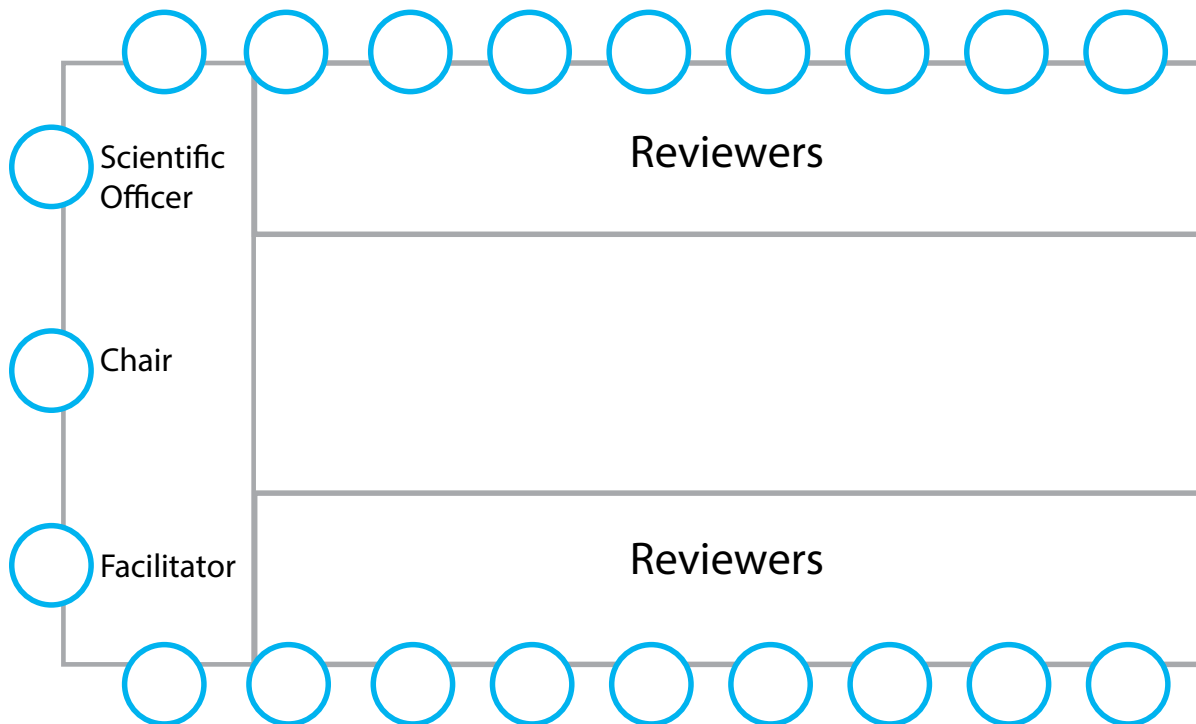
[Click for a printable copy](#)

Criterion	Rating (0.1 to 4.9)
Significance and Impact of the Research Approaches and Methods Expertise, Experience and Resources	
Application Summary	
Criterion 1. Concept Comments for Significance and Impact of the Research	
Criterion 2. Feasibility Comments for Approaches and Methods	
Criterion 2. Feasibility - cont. Comments for Expertise, Experience and Resources	
Integration of Sex and/or Gender:	Please justify your assessment for the integration of sex and/or gender.
Sex as a Biological variable Strength <input type="checkbox"/> Weakness <input type="checkbox"/> Not Applicable <input type="checkbox"/>	
Gender as a socio-cultural determinant Strength <input type="checkbox"/> Weakness <input type="checkbox"/> Not Applicable <input type="checkbox"/>	

PREPARATION AND ROOM SET UP

**Please note these are suggestions; please adapt as necessary.*

PRINTING GUIDE		
NO.	DOCUMENT NAME	DESCRIPTION
1 per committee executive	Run Simulation - Sequence of Steps for Peer Review Committee Meeting	A step by step description of the process useful for the Chair, SO(s), and Facilitator(s)
1 per participant	Review Quality (ROA) Checklist	A practical tool to assist reviewers when writing reviews and useful for entire committee
1 per participant	Rating Scale	A table outlining the rating scale and definitions, useful for entire committee
1 per application	Scientific Officer Note Template	A template for the Scientific Officer(s)
1 per participant	Post- Meeting Evaluation Template	An evaluation form for all attendees
1 per committee executive	Executive - Roles, Responsibilities and Scripts	Scripts to assist the Chair, SO(s), and Facilitators
1 per reviewer	Reviewer - Roles, Responsibilities and Scripts	Scripts to assist the Reviewers



RUN SIMULATION

SEQUENCE OF STEPS FOR PEER REVIEW COMMITTEE MEETING

1. Overview of Process

Provide an overview of the simulation, including the steps outlined below and a [refresher on quality reviews](#).

2. Application Initial Ratings

- The Chair announces the application that is to be reviewed.
- The Chair announces reviewers in conflict who then subsequently leave the room (**may not be applicable for all simulations**).
- The Chair announces the reviewers.
- The assigned Reviewers announce their initial rating.

3. Reviewers present the application and their reviews

- The primary Reviewer (i.e., Reviewer # 1) provides a brief synopsis of the proposal and presents their assessment, describing strengths and weaknesses of the proposal, including comments on the integration of sex and/or gender in the research design, methods, analysis, and/or dissemination of findings, when appropriate.
- The two secondary Reviewers (i.e., Reviewer # 2 and # 3) follow, concentrating on points of agreement or disagreement with the other Reviewers, and elaborating on points not already addressed.

4. Committee discussion

The Chair opens and moderates the committee discussion:

- Reviewers are encouraged to participate in the discussion.
- The discussion should focus on aspects of the application raised in the reviews, especially those aspects that are contributing to its rating.
- Differences of opinion between Reviewers should be discussed.
- If the assigned Reviewers have not commented on the sex and/or gender components of the application, the Chair will ask the Reviewers and other committee members to comment on the integration of SGBA into the proposal, if applicable. Those comments should be recorded in the Scientific Officer notes, and should occur prior to the consensus score being discussed.

5. Scientific Officer

- Scientific Officer takes notes of the key elements of the discussion. The notes are read to the committee for validation/approval.

SEQUENCE OF STEPS FOR PEER REVIEW COMMITTEE MEETING**6. Consensus rating by reviewers**

- The Chair asks the Reviewers to come to a consensus rating.
- If a consensus cannot be reached, the Chair will determine the consensus rating by averaging the ratings from the Reviewers after the discussion.

7. Committee individual ratings

- The committee members are asked to rate the application, they are permitted to vote +/- 0.5 from the consensus score.
- The Chair and Scientific Officers do not vote.

8. Matters to be flagged

- Ethics issues, eligibility, use of human stem cells, other concerns, research of general interest (especially the applications highly rated and ranked by the committee).

9. Scientific Officer

- Scientific Officer reads final notes, for validation/approval by the committee.

ROLES, RESPONSIBILITIES AND SCRIPTS

Facilitator

The facilitator is responsible for organizing the session and ensuring that everyone has the appropriate documentation.

The facilitator will:

- provide all necessary documentation
 - discuss conflicts of interest
 - clarify policies and/or administrative processes
 - keep track of the time
 - ensure chair knows when it is time to take a break
-

Chair

It is the Chair's responsibility to ensure that the review committee functions smoothly, effectively and objectively, and that a positive, constructive, fair-minded environment in which research proposals are evaluated is established and maintained.

The Chair will:

- provide opening remarks to the committee, including an outline of the structure and agenda of the day.
 - explain the meeting process to the committee, including the review of SGBA considerations in the applications.
 - briefly discuss the budget and term components and remind reviewers that they are not part of the mock review session.
 - ensure that all committee members who are in conflict with an application leave the meeting room before the discussion of the application.
 - appoint a delegate as Chair or Scientific Officer when either individual leaves the meeting room due to a conflict of interest with an application or for any other reasons.
 - fulfill an oversight role – does not rate applications nor vote during the committee meeting.
 - ensure the involvement of the entire committee in evaluating each application.
 - work with the Scientific Officers, as required, to summarize the discussion around each application, before the consensus rating is reached.
 - ensure that a consensus rating is reached by the assigned reviewers.
 - ensure that specific ethical concerns and other CIHR requirements are addressed, and that any related discussion is captured in the Scientific Officer notes.
-

Scientific Officer

The Scientific Officer (SO) assumes the role of note taker.

The SO will:


- take official notes of the committee discussions for each application (SO Notes). The SO Notes should provide the applicants with insight into the committee discussion of their applications. They should be clear and concise, and give objective and constructive feedback to the applicants. They should:
 - include the strengths and weaknesses of the applications discussed by the committee.
 - address the issues that had the greatest impact on the evaluation, as they relate to the program's evaluation criteria.
 - address aspects of the committee discussions that were not captured in the reviewers' reports.
 - describe how reviewer disagreements, as seen in the individual reviewer reports, were reconciled by identifying which view was favored by the committee.
- read back the SO Notes to the committee for validation and for additional input before a consensus rating on each application is reached by the assigned reviewers, and all the members' votes are cast.
- ensure that special considerations related to ethics and/or other issues are also recorded in the SO Notes, if applicable.

The SO does not rate applications or vote during the committee meeting.

SCIENTIFIC OFFICER NOTES TEMPLATES

Competition:	Project Grant
Peer Review Committee:	N/A
Nominated Principal Applicant:	
Application Number:	N/A
Project Title:	
Strengths:	
Weaknesses:	

Reviewers

The Reviewer evaluates each of the applications assigned to them by providing a critical assessment of the applications, as well as constructive feedback based on the program's objectives and adjudication criteria described in the [funding opportunity](#) .

The Reviewer will:

- consider all factors and the strengths and weaknesses of the applications in relation to each adjudication criterion.
- focus their comments on the factors most relevant to their ratings.
- provide comments on the integration of sex (as a biological variable) and/or gender (as a socio-cultural determinant of health) in the applications, if applicable.
- provide comments on the budgets requested and a formal recommendation to CIHR in the "Budget" section, including clear and detailed reasons for any recommended budget or term cuts, if applicable (**Note: discussion of budget and term support is not currently within scope of this Mock Review Toolkit*).
- provide comments on issues that they feel should be flagged, as required. These concerns should not influence the rating or budget recommendations, unless they bear on the scientific merit of the applications.
- provide their initial ratings to one decimal place on ResearchNet in advance of the committee meeting. (**Note: Reviewers will not be using ResearchNet for the simulation, but rather the provided [Review Templates](#)*).
- familiarize themselves in advance of the committee meeting with the applications to be assessed by their committee as this will facilitate discussions at the face-to-face committee meeting.
- present to the committee the review of their assigned applications.
- participate in the committee discussions.
- vote on all the applications discussed by the committee and for which they are not in conflict with.

Reviewer Scripts

Reviewer #1 Script


- Once Chair introduces Reviewers, present initial scores to committee.
- Present a brief overview of the application, premise of the research, study design etc.
- Discuss strengths and weaknesses.
- Listen to other reviews.
- Following Reviewer #3 discuss consensus score.
- Discuss further if necessary.
- Confirm content of notes from Scientific Officer at the end of the discussion.

Reviewer #2 and #3 Script

- Once Chair introduces Reviewers, present initial scores to committee.
- Listen to Reviewer #1's overview of the application and comments.
- Present strengths and weaknesses not mentioned by Reviewer #1 (and subsequently Reviewer #2).
- Once all discussion has taken place, reviewers discuss consensus score.
- Discuss further if necessary.
- Confirm content of notes from Scientific officer at the end of the discussion.

AFTER THE SIMULATION

DEBRIEF AND EVALUATION

Following the simulation, a discussion about review quality should follow, using the Standards of Practice for Peer Review and the review quality assurance checklist. CIHR bases its funding decisions on [peer review](#) , the internationally accepted standard for determining excellence in scientific research. The integrity of the peer review system relies on the ability of reviewers to exercise fair and rigorous judgement. Reviewers demonstrate this judgement through written reports (or reviews), which normally consist of the rating (or score) and explanatory comments. Reviewers are also encouraged to discuss and reflect on the overall experience and lessons learned.

Please use the [Review Quality Checklist](#) provided in the pre-simulation training materials to help discuss or evaluate the quality of reviews and discussions that took place during the simulation.

In the weeks following the simulation, reviewers should also be sent a survey (such as the [Post-Meeting Evaluation Template](#)) to evaluate the utility and effectiveness of the simulation.

AFTER THE SIMULATION

POST-MEETING EVALUATION TEMPLATE

Mock Review Training Evaluation Form (for participants in Mock Peer Review)

Date: _____

Please rate from 1 (strongly disagree) – 5 (strongly agree) or NA

1. The objectives of the training session were clearly defined.

1 2 3 4 5 NA

2. The simulation and roles were well explained prior to the session.

1 2 3 4 5 NA

3. Participation and interaction were encouraged.

1 2 3 4 5 NA

4. This session was helpful in learning about the Peer Review Process at CIHR.

1 2 3 4 5 NA

5. The objectives were met.

1 2 3 4 5 NA

6. I would recommend this session to my peers.

1 2 3 4 5 NA

Additional comments:

For more information about

Project Grant Competition Mock Review Toolkit, College of Reviewers,
please visit www.cihr-irsc.gc.ca or
contact us at: college@cihr-irsc.gc.ca

Follow CIHR on:

- <https://www.facebook.com/HealthResearchInCanada>
- https://twitter.com/cihr_irsc
- <https://www.linkedin.com/company/canadian-institutes-of-health-research>
- https://www.instagram.com/cihr_irsc/