



CIHR IRSC

Canadian Institutes of
Health Research

Instituts de recherche
en santé du Canada

Policy on Access to Research Outputs

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1. Preamble

As a publicly funded organization, CIHR has a fundamental interest in ensuring that the findings that result from the research it funds, including research publications and publication-related data, are available to the widest possible audience, and at the earliest possible opportunity. Advancements in science and health care are made possible through widespread and barrier-free access to cutting-edge research and knowledge enabling scientists, clinicians, policymakers and the public to use and build on this knowledge.

The advent of the internet has transformed the way that science and scholarly research is communicated. Indicative of this changing landscape has been the steady growth in open access publishing and archiving which facilitate widespread diffusion and free digital access to publications and the latest scientific discoveries. Open access enables researchers to make their research results freely accessible and useable for the international research community thereby enhancing the application of research results. CIHR strongly supports unrestricted access to research outputs, which promotes the principle of scientific openness, an essential element of science. The importance of access to research outputs has been recognized by other research funding agencies, including the U.S. National Institutes of Health, U.K. Medical Research Council, The Wellcome Trust, and the Australian Research Council.

The policy outlined in this document was developed under the advice and guidance of the CIHR Advisory Committee on Access to Research Outputs (ACARO).¹ This policy is a result of extensive dialogue with stakeholders, a broad public consultation, and discussions within the ACARO.

2. Policy Objective

The objective of this policy is to improve access to research outputs funded by CIHR, and to increase the diffusion of research results.

3. Guiding Principles

Following from CIHR's core values and its commitment to the highest scientific and ethical standards, the following principles guide CIHR in promoting access to research outputs:

- Committing to academic freedom, and the right to publish;
- Maintaining the high standards and quality of research by committing to scientific openness, integrity and ethics;
- Promoting recognized research best practices and standards across disciplines, and embracing and sharing emerging practices and standards;
- Advancing science and innovation;
- Effective diffusion of research results; and
- Aligning activities, programs and policies between Canadian and international research funding agencies.

4. Application

This policy applies to all grants awarded January 1, 2008 and onward, which have received funding in whole or in part from CIHR. While not required, researchers holding grants that were awarded prior to January 1, 2008 are encouraged to adhere to the requirements of this policy.

5. Policy Statement

5.1 Guidance on Access to Research Outputs

- Research outputs are conceptual or practical knowledge, data, information, and physical or biological materials developed during the course of a research project that are integral for building on research discoveries. CIHR recognizes three categories of research outputs: peer-reviewed journal publications, research materials, and research data.
- For now, CIHR has decided to limit this policy to peer-reviewed journal publications and publication-related biomedical research data, which is typically deposited into public databases as a condition of publication. CIHR is committed to improving access to research outputs and will explore broadening the policy to include research materials and other research data in the future.
- Researchers, research ethics boards, institutions and all those involved in research involving human subjects, are responsible for respecting the rights and reasonable expectations of individuals, groups or communities, with regard to protection of their privacy and of the confidentiality of their information obtained for research purposes. This policy should be read in conjunction with applicable privacy legislation and policies in the jurisdiction(s) where the research is being or has been conducted, as well as with the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Human Subjects*, *Guidelines for Human Pluripotent Stem Cell Research*, *CIHR Guidelines for Health Research Involving Aboriginal Peoples*, the *Food and Drugs Act*, and of the *Food and Drug Regulations*.

5.1.1 Peer-reviewed Journal Publications

- Grant recipients are now required to make every effort to ensure that their peer-reviewed publications are freely accessible through the Publisher's website (Option #1) or an online repository as soon as possible and in any event within six months of publication (Option #2).
- Under the second option, grant recipients must archive the final peer-reviewed full-text manuscripts immediately upon publication in a digital archive, such as PubMed Central (<http://www.pubmedcentral.nih.gov/>) or the grantees institutional repository (http://www.carl-abrc.ca/projects/institutional_repositories/canadian_projects-e.html). Publications must be freely accessible within six months of publication, where allowable and in accordance with publisher policies. Grant recipients may use the SHERPA/RoMEO database to locate summaries of publisher copyright policies: <http://www.sherpa.ac.uk/romeo.php>. The SHERPA/RoMEO database will help grant recipients determine which journals allow authors to retain copyright and/or allow authors to archive journal publications in accordance with funding agency policies. However, CIHR recommends confirming with editorial staff whether archiving the postprint immediately, and making it freely accessible within six months, is permissible.

- Grant recipients may also wish to submit their manuscripts to a journal that provides immediate open access to published articles (if a suitable journal exists). CIHR considers the cost of publishing in open access journals to be an eligible expense under the Use of Grant Funds.
- Book chapters, reports, monographs, editorials, or conference proceedings arising from CIHR-funded research are not currently covered under this policy.
- Grant recipients must now acknowledge CIHR contributions in all peer-reviewed publications, quoting the funding reference number.

5.1.2 Publication-related Research Data

- Recognizing that access to research data promotes the advancement of science and further high-quality and ethical investigation, CIHR explored current best practices and standards related to the deposition of publication-related data in openly accessible databases. As a first step, CIHR will now require grant recipients to deposit bioinformatics, atomic, and molecular coordinate data into the appropriate public database, as already required by most journals, immediately upon publication of research results (e.g., deposition of nucleic acid sequences into GenBank). Please refer to the Annex for examples of research outputs and the corresponding publicly accessible repository or database.
- CIHR now requires grant recipients to retain original data sets arising from CIHR-funded research for a minimum of five years after the end of the grant. This applies to all data, whether published or not. The grant recipient's institution and research ethics board may have additional policies and practices regarding the preservation, retention, and protection of research data that must be respected.

6. Monitoring and Adherence

- Grant recipients are reminded that by accepting CIHR funds they have accepted the terms and conditions of the grant or award as set out in the Agency's policies and guidelines.² In the event of an alleged breach of CIHR funding policy, CIHR may take steps outlined in the *CIHR Procedure for Addressing Allegations of Non-compliance with Research Policies* to deal with the allegation.³

7. Policy Review

- CIHR will review and update this policy on an annual basis or as needed.

ANNEX

Examples of research outputs and corresponding publicly accessible archive, repository or database	
Peer-reviewed journal publications: Publicly accessible archive or repository	
PubMed Central: http://www.pubmedcentral.nih.gov/	
Institutional Repositories at Canadian universities: http://www.carl-abrc.ca/projects/institutional_repositories/canadian_projects-e.html	
Directory of Open Access Repositories (international): http://www.opendoar.org/	
Research data	Public database or archive
Nucleic acid sequences	GenBank: http://www.ncbi.nih.gov/Genbank/index.html
Gene expression data	Gene Expression Omnibus: http://www.ncbi.nlm.nih.gov/geo/
Structure data	Research Collaboratory for Structural Bioinformatics (RCSB) Protein Data Bank: http://www.pdb.org/pdb/Welcome.do
Single nucleotide polymorphisms (SNPs)	The Single Nucleotide Polymorphisms Database: http://www.ncbi.nlm.nih.gov/SNP
Molecular interaction data	See International Molecular Exchange Consortium (IMEx) partners: http://imex.sourceforge.net
DNA and clinical data related to the human major histocompatibility complex (MHC).	dbMHC: http://www.ncbi.nlm.nih.gov/mhc/MHC.fcgi?cmd=init
Proteomics data*	- PRoteomics IDentifications database (PRIDE): http://www.ebi.ac.uk/pride/ [European Bioinformatics Institute (EBI)] - PeptideAtlas: http://www.peptideatlas.org/ [Institute for Systems Biology (ISB)] - Global Proteomics Machine (GPM): http://gpmdb.thegpm.org/

*Deposition of proteomics data

Given that proteomics is a burgeoning field, standards for data storage and deposition are still in development. Therefore, CIHR-funded investigators that are generating proteomics data are encouraged to deposit their trace files in one of the three Open repositories. CIHR will follow the trends in this field and update this table as necessary.

Endnotes and references

¹ **CIHR Advisory Committee on Access to Research Outputs (ACARO)**

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² CIHR Grants and Awards Guide. <http://www.cihr-irsc.gc.ca/e/805.html>

³ CIHR Procedure for Addressing Allegations of Non-compliance with Research Policies. <http://www.cihr-irsc.gc.ca/e/25178.html>