Congenital Heart Disease (CHD) Team Grants

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A. SPECIFIC PROGRAM INFORMATION

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Competition launch date	July 17, 2023
Registration deadline	September 15, 2023
Application deadline	November 15, 2023
Peer review process	January 2024
Grant notification date	March 2024
Grant start date	April 1, 2024
Value	$5,250,000 CAD; $1,750,000 CAD/team ($350,000 CAD per year for five (5) years)
Application Procedures	See B. How to Apply
Contact	Email: research@heartandstroke.ca

A.1 Purpose and Objectives

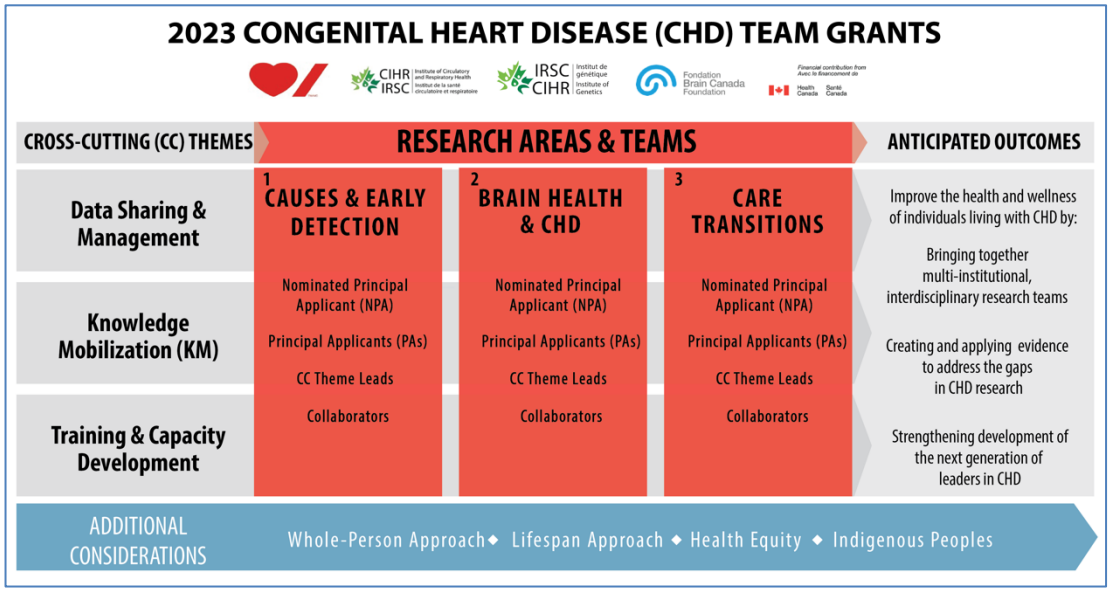
The Heart and Stroke Foundation of Canada (Heart & Stroke) is prioritizing the development of a Congenital Heart Disease (CHD) Strategy for Canada to enable optimal wellness and health outcomes for people living with CHD, their families and caregivers. As a key pillar of this strategy, Heart & Stroke together with Brain Canada, the Canadian Institutes of Health Research (CIHR) Institute of Circulatory and Respiratory Health (ICRH) and CIHR Institute of Genetics (IG) are collectively committing $5,250,000 CAD over five (5) years to fund the Congenital Heart Disease (CHD) Team Grants Funding Opportunity.

This funding opportunity focuses on CHD throughout the lifespan in the context of the whole-person with consideration of Indigenous health and wellness and health equity. Research Teams will focus on one of three priority Research Areas: *(1) Causes and Early Detection; (2) Brain Health & CHD;* and *(3) Care Transitions*. The competition aims to bring together multi-institutional, interdisciplinary health research teams with multiple collaborators (e.g., researchers, clinicians, people with lived/living experience (PWLE), health care providers, Indigenous Elders or Knowledge Keepers, government, policy makers, not-for-profit organizations, and industry) to create and mobilize knowledge that will improve the health and wellness of individuals living with CHD, their families and caregivers. The specific objectives of this funding opportunity are to:

- Expand our understanding of the causes of CHD and the avenues for prevention, early detection, management and rehabilitation using an interdisciplinary approach to improve health outcomes and care pathways for pediatric and adult populations.
- Coordinate the collection and equitable sharing of research data, results and evidence to support an innovative whole-person approach that considers the interactions among environmental, social, emotional and biological contributions to the health and wellness of people and families living with CHD.
- Create, mobilize, implement, and iteratively evaluate high-quality evidence more broadly (e.g., bench-to-bedside, bedside-to-practice, and policy) by using best and wise practices to bridge the gaps between research results, better health outcomes, and equitable access to care.
- Engage trainees and professionals at all career stages through high-quality, interdisciplinary training, experiential learning and career development, to better prepare them to employ intersectional and interdisciplinary approaches to CHD and to strengthen the relevant CHD research capacity in Canada.

The funders recognize that minimizing systemic barriers and improving our understanding of CHD is essential for all individuals to have timely and equitable access to CHD diagnostics, interventions and long-term holistic care management. Meaningful engagement of PWLE and inclusion of the social determinants and broader contexts that influence the health of people living with CHD are expected to support more impactful research, optimize health outcomes and improve knowledge exchange to help reduce inequities in health and healthcare for people living with CHD as well as their family and caregivers.

A.2 Team Grant Structure



A.2.1 Value of Team Grants

This competition seeks to fund three (3) interdisciplinary Team Grants, with a total funding envelope of $5,250,000 CAD. The maximum amount per Team Grant is $350,000 CAD per year for a maximum of five (5) years. This amount may increase if additional funding becomes available through current or new partnerships.

A.2.2 Research Areas

Each Team Grant will have a primary focus on one of the following Research Areas: (1) Causes & Early Detection; (2) Brain Health & CHD; and (3) Care Transitions.

CAUSES & EARLY DETECTION: Research to better understand the causes of CHD and support its early detection is needed to inform individualized care and to optimize health outcomes within the populations affected by CHD. To ensure that early diagnosis and comprehensive care of people with CHD are guided by the highest quality evidence available, research must be rigorous, reproducible, and collaborative, and take a whole-person and lifespan approach. It must also address the heterogeneity in CHD etiology including genetic contributions and interactions with other factors (e.g., social, environmental, behavioural and biological).

BRAIN HEALTH & CHD: Despite growing evidence of commonalities and interactions in the underlying pathophysiology in the heart and brain, and the high impact of CHD on various aspects of brain health, the health system continues to be managed as a "single disease" model - with siloed specialist care for conditions such as heart disease, stroke, mental health and cognitive impairment. For those living with CHD, research focused on the complex brain-heart interactions and the effects of CHD on short- and long-term brain health, with more consideration of co-existing dependencies and shared fundamental biological mechanisms, is critically needed. Such research will enable the rethinking of prevention, care assessment, treatment, ongoing management, and system planning which together can make a difference in overall health and wellness at individual, population, and societal levels.

CARE TRANSITIONS: Further research is needed to develop evidence-based health system designs that enable integrated and seamless care transitions for people living with CHD, their family and caregivers. As individuals living with CHD grow and mature their health status and needs change over the course of this

life-long condition. Evidence-based health system designs that integrate whole-person approaches to care, broadly recognize the health needs of people living with CHD beyond the heart (e.g., the emotional, psychological, physical, and biological), and recognize the needs of family and caregivers are expected to improve the overall outcomes and quality of life of those affected by CHD. While all transitions experienced by individuals with CHD will likely benefit from better coordination, continuity and consistency of care, some of the most challenging care transitions identified include: pediatric to adult medical care, childhood parental dependency to independent adulthood; and the transition to end-of-life care. In addition, the uptake of validated evidence-base approaches into standard practice, along with enabling factors to inform the design and roll-out of new practices, need to be evaluated and measured through rigorous implementation science methods.

A.2.3 Cross-Cutting (CC) Themes

Three Cross-Cutting (CC) Themes have been identified in this funding opportunity to support collaboration and leveraging of resources amongst the funded Research Teams: (1) Data Sharing & Management; (2) Knowledge Mobilization (KM); and, (3) Training & Capacity Development. As part of the full application, each team will be expected to submit plans related to each CC Theme. Once funded, the three teams are expected to collaborate and leverage the developed resources related to each CC Theme.

Data Sharing & Management: Team Grant applicants are required to develop a Data Sharing and Management Plan that coordinates the collection, standardization, use, sharing, linkage, and management of data across all teams. The plan should use the FAIR principles (Findable, Accessible, Interoperable, Reusable), and as appropriate, incorporate the CARE principles (Collective benefit, Authority to control, Responsibility and Ethics) for Indigenous Data Governance, the First Nations Principles of OCAP® (Ownership, Control, Access and Possession), and/or other relevant Indigenous data governance principles that reflect and respect Indigenous data governance and data sovereignty. [See the Tri-Agency Research Data Management Policy for more information]

Knowledge Mobilization (KM): Team Grant applicants are required to develop a Knowledge Mobilization (KM) Plan detailing the proposed activities and including relevant stakeholders (e.g., researchers, clinicians, PWLE, health care providers, Indigenous Elders or Knowledge Keepers, government, policy makers, not-for-profit organizations). KM activities should aim to mobilize existing knowledge and co-create new knowledge into better care policies, practices, procedures, products and services for people living with CHD, their families and caregivers.

Training & Capacity Development: Team Grant applicants are required to develop an Interdisciplinary Training Plan that includes cohesive training, mentoring, capacity building, and experiential learning opportunities. The plan must include trainees and researchers across all career stages and diverse ethnicities, including Indigenous health researchers, as appropriate. The training and capacity development plan must include opportunities for cross-cultural learning to enhance capacity to address health disparities in research and in health care, including developing capacity for meaningful and culturally safe engagement with Indigenous communities.

A.2.4 Additional Considerations

Whole-person Approach: Team Grant applicants are expected to integrate a whole-person approach recognizing that individuals with CHD, their caregivers and families have needs that change over time and extend beyond healthcare to all other aspects of life including functional, emotional, cultural, spiritual, educational, vocational environmental and support needs. Understanding these changing needs, and the values and goals of an individual with CHD will be essential to improving overall outcomes and enhancing quality of life.

Lifespan Approach: Team grant applicants are expected to take a lifespan approach in the research design, methods, analysis and interpretation, and/or dissemination of findings where appropriate. As age, life stage, transitions and intergenerational factors have an impact on those living with CHD, the lifespan approach will be critical for addressing the wide variations within the population affected by CHD and informing individualized care.

Equity, Diversity and Inclusion (EDI): Team grant applicants are expected to clearly describe the research team's commitment to engaging members of diverse backgrounds, particularly related to how they will address EDI in the Research Team leadership, team composition, recruitment, training, mentorship, and inclusion in research design, methods, analysis and interpretation. Efforts to increase meaningful participation by groups historically excluded from science are strongly encouraged. All proposals are expected to consider how sex and/or gender might shape CHD research activities. Data should be disaggregated where possible, including, but not limited to, sex, gender, age, and ethnicity. Additional guidance on EDI can be found in the Heart & Stroke Glossary of SGBA+ and EDI Terminology, the Heart & Stroke List of SGBA+ and EDI E-Learning and Resources for Researchers, and the Government of Canada Best Practices in EDI Research.

Indigenous Peoples: As appropriate, Team Grant applicants are expected to include Indigenous health researchers and collaborators with a track record of meaningful and culturally safe engagement of Indigenous communities in the proposed research. Principles of Indigenous health should be integrated across research design and practice, as appropriate, to create and sustain Indigenous health equity in CHD research.

A.2.5 Research Teams, Roles and Responsibilities

Each Team Grant must be interdisciplinary and include a Nominated Principal Applicant (NPA), Principal Applicants (PAs), CC Theme Leads, and Collaborators. Their roles and responsibilities are detailed below.

The ***Nominated Principal Applicant (NPA)*** will provide oversight of the Team Grant research program, objectives and budget. The NPA is also responsible for:

- Leading completion of the Annual Reports and Final Report to the funders.
- Collaborating with the PAs and CC Theme Leads to:
    - Allocate funding across Team Grant research activities;
    - Integrate CC Themes within the selected Team Grant and co-develop CC Theme plans; and
    - Leverage developed CC Theme resources across Team Grants once funded.
- Attending the Planning Workshop (within six months of the funding start date), Mid-Term Meeting (Year 3), and End-of-Grant Knowledge Mobilization Meeting (during the last year of the grant).
- Selecting up to three additional team members to attend the Planning Workshop, Mid-Term Meeting, and End-of-Grant Knowledge Mobilization Meeting.

The ***Principal Applicants (PAs)*** will provide leadership to undertake innovative and impactful research projects and knowledge exchange in collaboration with all relevant stakeholders and partners as described in the grant application. The PAs are also responsible for:

- Collaborating with the CC Theme Leads in the development of CC Theme plans and resources.
- Allocating budget regarding the shared resources across their Team as described in the reviewed application.
- Collaborating with the NPA to provide project-specific budgetary and scientific reporting to the funders.
- Establishing an inclusive, equitable and rich learning environment for all trainees and team members, especially early career investigators, as appropriate.

The ***Cross-Cutting (CC) Theme Leads*** will lead the development of the CC Theme Plans (Data Sharing & Management; Knowledge Mobilization (KM); Training & Capacity Development). CC Theme leads may be PAs, Collaborators or Knowledge Users. Each CC Theme must be led by a different team member. The CC Theme Leads will also be responsible for:

- Collaborating with team members to co-develop CC Theme resources.
- Liaising with the NPA and PAs in their team, and with other CC Theme leads, to leverage CC Theme resources developed by other Teams Grants.

Collaborators and Knowledge Users: Teams must engage a broad spectrum of collaborators and knowledge users such as researchers, clinicians, PWLE, health care providers, Indigenous Elders or Knowledge Keepers, government representatives, policy makers, not-for-profit organizations, and industry.

- A Collaborator provides a specialized service (such as access to equipment, provision of specific reagents, training in a specialized technique, statistical analysis, access to a patient population), but is not involved in the overall intellectual direction of the research.
- A Knowledge User is defined as an individual who is likely to be able to use research results to make informed decisions about health policies, programs and/or practices.

Equity, diversity and inclusion (EDI) in research environments supports excellence, innovation and creativity. The funders are committed to excellence through equity and encourage NPAs and PAs to integrate EDI considerations in selection of members of the research team.

A.3. Eligibility Criteria

For an application to be eligible:

a. The NPA and PAs must be independent researchers at eligible Canadian institutions. Applicants can be NPA for one CHD Team only; however, they may be involved in different capacities in other CHD Teams.
b. The NPA may not change between the Registration and the Full Application.
c. The PAs must include early- and mid-career researchers. An 'early-career researcher' is within the first five (5) years since their first faculty appointment at the Assistant or Clinical Assistant Professor level, or equivalent, at the time of submission. All those who held ECR status as of March 1, 2020—or who secured their first academic appointment after this date—will have their status extended by one year. A mid-career researcher is between 5 and 15 years since their first faculty appointment at the Assistant or Clinical Assistant Professor level, or equivalent, at the time of submission.
d. At the time of full application deadline, the NPA and PAs must have successfully completed and submitted a Certificate of Completion in **at least one** CIHR Sex and Gender Training Module. As appropriate, the NPAs, PAs and CC Theme leads are also encouraged to complete the CIHR Training Module on *Research Involving First Nations, Inuit, and Métis Peoples of Canada*.
e. The Host Institution/University is the institution or organization that is responsible for receiving and administering the grant on behalf of the recipient. It will be the home institution of the NPA. Documentation of support for the NPA and the application by the Host Institution shall be required as part of the full application process.

A.4 Funding Policies

A.4.1 Allowable Costs

Note: For information on the use of grant funds, please consult the Tri-agency Financial Guide on Administration; 2. Use of Grant Funds.

a. Team Grant expenditures must:
   - be for the direct costs of research for which the funds were awarded, with benefits directly attributable to the grant;
   - not be used for indirect costs of research; these are defined as costs that cannot be directly associated with a particular research program or operating grant including; costs associated with the general operation and maintenance of facilities (from laboratories to libraries); the management of the research process (from grant management to commercialization); and regulation and safety compliance (including human ethics, animal care and environmental assessment); and generic institutional/departmental taxes/tithes related to services;
   - not be provided by the administering institution to their research personnel; and
   - not result in personal gain for members of the research team.

b. Additionally, the following expenses will be considered eligible for funding received through this funding opportunity:
   - Activities related to the oversight of the research program and CC Themes.
   - Release Time Allowance: up to $50,000 CAD per year up to a maximum of $250,000 CAD over the five (5) year grant period.
   - Costs related to compensation for patient partners. See CIHR guideline on considerations when paying patient partners in research.
   - Costs related to Annual Meetings of the funded teams.
   - The *Tri-Council Policy Statement 2* (TCPS 2 (2022) - Chapter 9 Research Involving the First Nations, Inuit and Métis Peoples of Canada) recognizes the importance of respecting the culture and traditions of Indigenous Peoples and acknowledges the necessity to incur expenditures in that regard in the conduct of research. As such, the funders consider these expenditures eligible for payment from the grant holder's grant funds (with appropriate backup documentation);
     - Costs related to community mobilization and engagement, including culturally relevant promotional items such as, tobacco, cloth, feasting and gift giving for honoring ceremonies, and cash reimbursements (in a method acceptable to the individual or community being reimbursed) to compensate community participation; and
     - Contracts and/or consultant fees for knowledge translation and communication activities for Indigenous Elders, community members, and Indigenous Knowledge Keepers involved in activities related to the Indigenous community.

A.4.2 Conditions of Funding

Note: Once funded, the NPA and PAs are termed 'Nominated Principal Investigators (NPI)' and 'Principal Investigators (PIs)'.

Financial contributions for this initiative are subject to availability of funds. Should the funders' funding levels not be available or decrease due to unforeseen circumstances, funders reserve the right to reduce, defer or suspend financial contributions to grants received as a result of this funding opportunity.

a. Team Grants are not renewable.
b. Funds used to support research activities should principally be conducted in Canada. Justification will be required to allow for specialized service contracts at non-Canadian institution(s) who provide access to leading expertise, facilities, technologies, unique populations, and environments, research training and/or knowledge translation that is not otherwise available in Canada.
c. The NPA must consent to the use and disclosure of full application and nominative information.
d. The NPIs and PIs will be required to undertake the following activities to be **covered within the Team Grant budget**:
   - Attendance for up to four team members, including the NPI, for the Planning Workshop within six months of the start of funding, and the Mid-Term Meeting to be held at Year 3
   - All three teams (at least four members, including the NPI) must attend an End-of-Grant Knowledge Mobilization Meeting to be held during the last year of the grant.
e. Submit yearly Progress Reports, yearly Financial Reports, and a Final Report to the funders. Report templates will be made available to the NPI at the beginning of the grant funding period and can be filled in as the research progresses. All reports will be shared with partners supporting the grant.
f. Teams are expected to contribute to the monitoring, review and evaluation of the funders' programs, policies and processes by participating in evaluation studies, surveys, workshops, audits, and by providing data or reports as required for the purpose of collecting information to assess progress and results.

A.5 Review Process and Evaluation

Note: Only applicants who submit a registration package will be eligible to submit a full application.

A.5.1 Administrative Review

At the registration stage, the funders will conduct an administrative review. The applications that do not meet the eligibility criteria set out in the Registration Form will be withdrawn from the competition. There will be no formal appeal process once decisions are made.

A.5.2 Full Application Review Process

The funders will perform a relevance review to identify applications that are in alignment with the objectives and research areas of this funding opportunity and meet the eligibility criteria. Applications that do not meet these criteria will be withdrawn from the competition. There will be no formal appeal process once decisions are made. Applications will undergo peer review by the CHD Team Grant Panel, convened and overseen by the Heart & Stroke Scientific Review Committee (SRC). The CHD Team Grant Panel may include expert reviewers, PWLE, and knowledge users. Expert reviewers may include international members as well as reviewers from Canada. External reviews may be sought to bring additional expertise to support the review process. The Review Panel may meet in person or virtually at the discretion of the SRC and Heart & Stroke.

A.5.3 Evaluation Criteria

Team grants will be adjudicated on the following evaluation criteria.

Evaluation Criteria	*Relative Weight*
Vision and Approach: Research Activities and CC Themes	25 %
Team	25 %
Environment	25 %
Impact of Research	25 %

1. Vision and Approach: Research Activities and CC Themes

a. Extent to which the proposed priorities, objectives, scope and vision for the Team Grant and Crossing-Cutting Themes are focused, clear, appropriate and aligned with this funding opportunity.
b. Originality of the proposed research, in terms of the hypotheses/research questions addressed, novel technology/methodology, and/or novel applications of current technology/methodology.
c. Extent to which the proposed research integrates a lifespan and whole-person approach, Indigenous health and wellness (as appropriate), and addresses health disparities to create and mobilize knowledge that will improve the health and wellness of individuals living with CHD, their families and caregivers.
d. Extent to which Sex and Gender Based Analysis and Reporting (SGBAR) is integrated into the research design. Any application that does not incorporate SGBAR must provide a rationale for why it would not be relevant to the research.
e. If appropriate to the research activities, extent to which the team engages with Indigenous Peoples, to address research conducted by, grounded in, or engaged with First Nations, Inuit or Métis communities, societies or individuals and their wisdom, cultures, experiences or knowledge systems, as expressed in their dynamic forms, past and present. Appropriateness of the plan to engage/integrate patients/family/ caregivers/ communities within the Team.
f. Feasibility and appropriateness of the proposed activities to develop, implement and sustain the proposed research.

2. Team

a. Extent to which the NPA, PAs and CC Theme leads demonstrate leadership capacity (e.g., experience, support) to execute the proposed research.
b. Extent to which the Teams are interdisciplinary and multi-sectoral, engaging with patients, care givers, community, government, policy, health care providers, researchers, pediatric and adult clinicians, industry.
c. Extent to which EDI is included in the training and career development strategy.

d. Extent to which the Teams have a comprehensive training and career development strategy that meets the needs for capacity development and that is inclusive of trainees, researchers at all career stages, and across ethnicities, including Indigenous health researchers.
e. Extent to which the leadership, membership and overall composition of the Team reflects EDI and a balance of diverse disciplines, sectors, research priorities and stakeholders, including researchers, clinicians, people with lived/living experience, health care providers, Indigenous Elders or Knowledge Keepers, government, policy makers, not-for-profit organizations.

3. Environment

a. Availability and accessibility of personnel, facilities and infrastructure required to conduct the research.
b. Suitability of the environment to conduct the proposed activities.
c. Suitability of the environment (milieu, project and mentors) for the training of personnel.
d. The degree to which the proposed activities leverage and amplify existing national and international platforms (e.g., cohorts, data infrastructure supports, and biorepositories) relevant to CHD research.
e. Availability and accessibility to existing biological samples, patient cohorts and registries including information about the size of the cohort, type of variables, type of software, privacy standards and consent, and governance (where appropriate).
f. As appropriate to the proposed research, the extent to which the Teams will address and respect Indigenous data governance, by applying the First Nations Principles of OCAP®, the CARE Principles, and/or other principles of Indigenous data governance as appropriate.

4. Impact of the Research

a. Extent to which the proposed research plan demonstrates capacity in the field of CHD research in Canada to address the identified research area and achieve the objectives of this funding opportunity.
b. Extent to which the Research Projects and overall research plan lead to new scientific knowledge.
c. Appropriateness and adequacy of the proposed plan for knowledge mobilization.
d. Extent to which the proposed research leads to increased capacity, training and mentorship in the field of CHD.

Team grants eligible for funding will be ranked by the CHD Team Grant Panel. Each Team Grant will be scored on a scale from 0 to 4.9, and grants will be ranked in a top-down order, according to the following grading scheme. The fundable range is 3.5 to 4.9.

Descriptor	Range	Outcome
Outstanding	4.5 – 4.9	May be funded – Will be discussed by the CDH Team Grant Panel.
Excellent	4.0 – 4.4	
Very Good	3.5 – 3.9	
Fair	3.0 – 3.4	Not fundable – May or may not be discussed by the CHD Team Grant Panel.
Poor	0.0 – 2.9	

A.5.4 Funding Decision

The top ranked Team Grant in each Research Area will be funded. The successful Teams will be published on the Heart & Stroke and Brain Canada websites.

A.5.5 Partner and Internal Collaborator Participation

The opportunity to add new partners and internal collaborators to this funding opportunity may arise after publication. These partners and internal collaborators may not be listed; however, the principles that govern relevance review, including consent to share information and funding decisions, will still apply.

B. HOW TO APPLY

B.1 Registration

The Registration Form is available in both English and French. The NPA must complete and submit a Registration Form via Survey Monkey by 1**6:00 ET on September 15, 2023.** Registration Forms submitted after the deadline will not be accepted. There will be no appeal process for late submissions.

B.2 Full Application

Following the administrative review of the Registration Form, applicants who are deemed eligible will receive a personalized, confidential link to an online file share folder into which the NPA will upload all the application attachments. A complete application will include an Application Form and Application Attachments.

B.2.1 Application Form

The Application Form is a fillable Word document available in both English and French. The NPA must complete and upload the Application Form to their personalized file share folder by **16:00 ET on November 15, 2023.** Note that all sections of the Application Form must be completed for the Application Attachments to progress to the review stage. Application Forms submitted after the deadline will not be accepted. There will be no appeal process for late submissions.

B.2.2 Application Attachments

Applicants must complete and upload all Application Attachments in a combined **PDF** format (i.e., one (1) PDF) to their personalized file share folder. Applicants may submit the application attachments in English or French. All attachments must be single-spaced using either 12-point Times New Roman or 11-point Arial font. Condensed type or spacing is not acceptable and will result in the removal of the application from the competition. Margins must be set at 1.87 cm (3/4 inch) all around.

Applicants should use the following style for labelling their PDF file:

LAST NAME, First Name of Applicant_Date of Submission

As an example:

DOE, Jane_October 15, 2023

Summary of Research Proposal (maximum 1 page English; 1.25 pages French)

Provide a one (1) page summary that includes:

- Selected Research Area;
- Broad goals and specific objectives of the proposed research;
- Brief methodological approach;
- Expertise to execute research activities; and
- Expected outcomes

Relevance to Funding Opportunity (maximum ½ page English or French)

Provide a ½ page summary describing:

- Relevancy of the proposed research activities to the funding opportunity.

Research Proposal (maximum 15 pages English; 18 pages French)

Include the following sections in the Research Proposal. The page limits are inclusive of charts, tables, figures and photographs, but NOT references. Please refer to A.5.3 Evaluation Criteria when completing this section.

Background/overview

- Provide the rationale/context/gaps relevant to the selected Research Area and proposed research activities.

Research Activities

- Detail the project activities specific to the selected Research Area, including broad goals, specific objectives, methodology, anticipated outcomes, challenges and mitigations, and timelines.

Cross-Cutting (CC) Themes

- Describe plans for each of the CC Themes: Data Sharing & Management Plan; Knowledge Mobilization Plan; and Training & Capacity Building.

Team

- Describe the leadership capabilities, skills and expertise of all team members, as well as the interdisciplinarity of the team, and its ability to contribute to the proposed research and engage in knowledge mobilization.
- Describe how the Team reflects EDI and a balance of diverse disciplines, sectors, research priorities and stakeholders, including researchers, clinicians, people with lived/living experience, health care providers, Indigenous Elders or Knowledge Keepers, government, policy makers, and not-for-profit organizations.

Environment

- Describe the suitability of the environment (personnel, facilities, infrastructure, resources) to conduct the proposed research and training activities

Impact & Sustainability

- Describe the anticipated impact of the proposed research, and the plan to address continued activities beyond the 5-year period of the grant.

Budget Table

- Complete the Budget Table in relation to the planned activities. Budget categories include salaries, equipment, materials and supplies, knowledge translation, and other, as well as cash contributions, if relevant.

Budget Justification (maximum 1 page English, 1.25 pages French)

- Provide a detailed budget justification in relation to planned activities and clearly justify all budget items (including cash contributions from other sources, if relevant).

CV requirements

- Academics (NPA and PAs), and CC Theme Leads who are academics, must provide a Canadian Common CV (CCV) – Heart & Stroke version. Please see the CIHR Academic CCV guide for tips on completing the CCV sections. Upon completing the CCV, output the form in the Heart & Stroke format.
- CC Theme Leads who are not academics may provide either a Common CV (CCV) – Heart & Stroke version OR and Applicant Profile CV (a 3-page PDF CV).
- Collaborators and Knowledge Users are NOT required to submit a CV.

Certificate of Completion in Sex and Gender Training Modules

- At the full application deadline, the NPA and PA(s) must have completed and submitted the Certificate of Completion of at least one CIHR-ICRH Sex and Gender Training Module.

Participant Table

- In table format, list all team members (including Collaborators & Knowledge Users). Include their title, affiliation, region, and role on the application (NPA, PA, CC Theme Lead, Collaborator, Knowledge, self-identifying as Indigenous, Knowledge Keeper, Early or Mid Career Investigator, trainees, knowledge user representing patient perspective).

H. Letters of Support (maximum 2 pages each, English or French)

- Letter of Support from the Vice President Research or institutional equivalents from the Host Institution confirming the institutional commitment from the NPA and adherence to the eligibility requirements.
- Letters of Support from the Dean and Department Heads **for all PAs** confirming institutional commitment and adherence to the eligibility requirements.
- Letters of Support from all Collaborators and Knowledge Users confirming their contributions to the proposed team grant. Private sector or industry partners may be included in the proposal, but are not required, and their involvement will not be factored into the review of the application. Any private sector or industry involvement must be free of conflict of interest.
- Letters of Support for Release Time Allowance requests from the recipient's organization certifying that the individual for whom the release time allowance is requested:
    - is a knowledge-user on the grant whose primary responsibilities do not include an expectation to engage in research (i.e., as part of their regular employment);
    - has their organization's approval for the research time on the project that would justify the allowance; and,
    - is engaged in the activities for which funds are being disbursed.

B.2.3 Submission Process and Checklist

Use the Application Checklist below to confirm that all components have been completed. The Application Attachments (in a combined PDF format) and the Application Form must be uploaded to the personalized File share folder by the submission deadline. All submissions will be confirmed.

Complete (√ or X)	Application Checklist: Deadline
	Application Form
	Complete Summary of Research Proposal
	Research Proposal
	Budget Table
	Budget Justification
	CV Requirements: CIHR Bioskech CV – for all academics
	CV Requirements: Applicant Profile CV – for all non-academics
	Certificate of Completion of at least one CIHR Sex and Gender Training Module (NPAs and PAs)
	Participant Table
	Letters of Support (NPA's Host Institution, Dean and Department Heads for PAs, Collaborators and Knowledge Users, Release Time Allowance)

C. GENERAL INFORMATIONHAV

C.1 Application Submission Deadline

It is the applicant's responsibility to ensure that the registration is submitted by SurveyMonkey no later than September 15, 2023, and the full application uploaded to the personalized file share folder no later than November 15, 2023. Any applications attempted or submitted after the deadline will NOT be accepted. There will be no appeal process for late submissions.

C.2 Incomplete Submissions

All submissions are considered final. No alterations or changes will be accepted. Any incomplete applications, as noted in this guideline document, will not be admissible to the competition.

C.3 Competition Results

Official letters will be sent to all applicants in March 2024, with a public announcement posted at a later date on the Heart & Stroke Research and Brain Canada websites.

C.4 Non-Employee Status

The awarding of a Team Grant is deemed to establish neither an employer-employee relationship nor a partnership between the funders and the recipients.

C.5 Communicating Research to the Public and Donors

Successful applicants need to be aware that the title of their research program and the lay summary could be placed into the public domain or included in the funders' publications without notification. Applicants are cautioned not to disclose information that could endanger a proprietary position in these sections.

Raising funds to support research is difficult and more than ever funders need to let donors and the public know that their donations are being used to support world class research. As successful applicants are well-positioned to explain the role of research in improving the health and wellness of individuals living with CHD, they may be asked by Heart & Stroke and Brain Canada to communicate the importance of research to donors and the public, via interviews and meetings with donors.

C.6 Ethical Requirements

By signing and submitting applications to this competition, applicants and their institutions undertake the responsibility to ensure any experimentation will be acceptable to the institution on ethical grounds and complies with the following guidelines and host institution research policies, as applicable:

- Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans
- Good Clinical Practice (GCP)
- Good Laboratory Practice (GLP)
- Canadian Council on Animal Care
- Canadian Biosafety Standards and Guidelines
- Guidelines for Human Pluripotent Stem Cell Research (The institution must notify Heart & Stroke as to the results of the review by the CIHR Stem Cell Oversight Committee.)
- TCPS2 (2022) – Chapter 9: Research Involving the First Nations, Inuit, and Métis Peoples of Canada

C.7 Sex- and Gender-Based Analysis Plus (SGBA+), Equity, Diversity and Inclusion (EDI), and Ethical Conduct of Research Involving Indigenous Peoples (First Nations, Inuit and Métis)

The funders are committed to advancing SGBA+ and EDI towards enhancing the specificity, representativeness, rigour and transparency of research and sustaining positive change in the CHD research ecosystem. The applicants are therefore encouraged to become familiar with the principles of SGBA+, EDI, and the framework for ethical conduct of research involving Indigenous Peoples in Canada, with the goal of integrating such principles, if applicable, into future research practice and design.

- Government of Canada Best Practices in Equity, Diversity and Inclusion (EDI)
- Guide on Equity, Diversity and Inclusion Terminology
- CIHR-ICRH Sex and Gender Training Module
- Women's College Hospital Sex-Specific Analyses and Reporting in Clinical Trials
- TCPS2 (2022) – Chapter 9: Research Involving the First Nations, Inuit, and Métis Peoples of Canada
- Heart & Stroke Glossary of SGBAR and EDI Terminology
- Heart & Stroke List of SGBAR and EDI E-Learning and Resources for Researchers

C.8 Patent Rights

The funders have no intellectual property (IP) claims on the outputs of the funded research. However, institutions of funded recipients are expected to have appropriate policies in place to protect the intellectual property of the outputs that arise from the funded research.

C.9 Open Science and Open Access to Research Outputs Policy

All grant recipients are required to make their research outputs and findings (see below) publicly available as soon as possible but no later than twelve (12) months after research project completion or final publication. Only under exceptional circumstances, such as ongoing review of a final manuscript, will delays in data release beyond 12 months from completion of the project be acceptable. Grant recipients should become familiar with the guiding principles that enable sharing data, information, tools and resources, and that respect Indigenous data governance and sovereignty.

- The Roadmap for Open Science outlines the principles governing the practice of making federal science freely available with minimal restrictions and with full respect for privacy, security, ethical considerations, and appropriate intellectual property protection.
- FAIR: Findable, Accessible, Interoperable, and Reusable are guiding principles to inform data management and stewardship of digital assets.
- CARE (Collective Benefit, Authority to Control, Responsibility, Ethics) are guiding principles for Indigenous Data Governance.
- First Nations Principles of OCAP® (Ownership, Control, Access and Possession) guide how First Nations' data should be collected, protected, used and shared.
- ClinicalTrials.gov is a database of privately and publicly-funded clinical trials around the world.
- PROSPERO is an international database of prospectively registered systematic reviews that have health-related outcomes.

Research outputs and findings may include peer-reviewed journal publications, research data, and the results of clinical trials that will not be published in peer-reviewed journals. Research findings may also be shared in ways that are culturally relevant and in formats that are functional, useful and practical to distinct needs of Indigenous (First Nations, Inuit and Métis) communities. Indigenous Peoples share some histories and concepts; however, each community has specific methods for knowledge synthesis, translation, and exchange. For Indigenous knowledge mobilization to be successful, meaningful and culturally safe, engagement with Indigenous communities is encouraged as they are best positioned to guide researchers towards the co-development of knowledge mobilization practices that work best for their communities.

C.10 Research Integrity Policy

The primary objective of the Heart & Stroke Research Integrity Policy is to protect and defend the integrity of the research process and to deal with allegations of scientific misconduct in a timely and transparent fashion. Data related to research by and with Indigenous Peoples (First Nations, Inuit, Métis), whose traditional and ancestral territories are in Canada, must be managed in accordance with data management principles developed and approved by those communities, and on the basis of free, prior and informed consent. This includes, but is not limited to, considerations of Indigenous data sovereignty, as well as data collection, ownership, protection, use, and sharing.

Responsibilities of researchers, institutions and Heart & Stroke with respect to research integrity are outlined in the Heart & Stroke Framework: Responsible Conduct of Research. Heart & Stroke defines research misconduct as actions that are inconsistent with "integrity" as defined in the Tri-Agency Policy Framework for the Responsible Conduct of Research, and that include breaches such as fabrication, falsification, destruction of research records, plagiarism, redundant publications or self-plagiarism, invalid authorship, inadequate acknowledgement, and mismanagement of Conflict of Interest. Heart & Stroke will assess allegations of scientific misconduct in the following manner:

- Any allegation of scientific misconduct will be initially reviewed by Heart & Stroke to determine whether an investigation is warranted. If it is felt that an investigation is required, Heart & Stroke may request that this be conducted by the host institution of the individual considered to have performed the alleged misconduct. In allegations specifically related to the peer review process, the investigation may be conducted jointly by the institution and Heart & Stroke.
- Heart & Stroke will not act on verbal allegations of misconduct. All allegations must be submitted in writing. Although the confidentiality of persons who submit an allegation of scientific misconduct will be protected as much as possible, it must be recognized that due process will often result in the identity of this person being released to the investigating institution.
- The institution will be required to submit a written report upon conclusion of the investigation. This report will summarize the findings of the investigation and any future actions that will be undertaken by the institution as a result of the findings.
- Applicants must certify that all statements made (or answers provided) in the application are correct and complete. Any misrepresentation of these statements (or answers provided) may result in the cancellation of the grant.
- In cases where misconduct is concluded to have occurred, Heart & Stroke may apply sanctions against the individual(s) implicated. These sanctions will range from a reprimand letter to a ban from applying for or holding Heart & Stroke funds for a set period of time.

C.11 Acknowledging Publications

Heart & Stroke must be notified in advance of the publication date of any major publications arising from the funded research by email at: research@heartandstroke.ca. Recipients must acknowledge the support of Heart & Stroke, CIHR-ICRH, CIHR-IG, and Brain Canada in all scientific communications and press releases related to their grant with the following wording:

"This work was supported by the Heart and Stroke Foundation of Canada, the Canadian Institutes of Health Research (CIHR) Institute of Circulatory and Respiratory Health (ICRH), the CIHR Institute of Genetics (IG), and the Canada Brain Research Fund (CBRF), an innovative arrangement between the Government of Canada (through Health Canada) and Brain Canada Foundation".

C.12 Contact Information

For any questions or concerns, the preferred form of communication is email. Your email will go to a research email inbox which is accessed by multiple research team members and is the best way to get a timely response.

Email: at research@heartandstroke.ca
Website: https://www.heartandstroke.ca/what-we-do/research/for-researchers

Please note this EMAIL ACCOUNT is only monitored from 9am-5pm EST, Monday to Friday.

Research Department
Heart and Stroke Foundation
research@heartandstroke.ca
www.heartandstroke.ca/what-we-do/research

C.13 Sponsor Description

Heart and Stroke Foundation of Canada
Life. We don't want you to miss it. That's why Heart & Stroke leads the fight against heart disease and stroke. We must generate the next medical breakthroughs so people in Canada don't miss out on precious moments. Together, we are working to promote health, save lives and enhance recovery through research, health promotion and public policy.

CIHR Institute of Circulatory and Respiratory Health (ICRH)
The Institute of Circulatory and Respiratory Health (ICRH) supports research into the causes, mechanisms, prevention, screening, diagnosis, treatment, support systems, and palliation for a wide range of conditions associated with the heart, lung, brain (stroke), blood, blood vessels, critical and intensive care, and sleep. The ICRH vision is to achieve international leadership by fostering an environment of openness, excitement, energy, commitment and excellence in highly ethical, partnered initiatives focused on research, research training, and research translation for the circulatory and respiratory sciences and for the betterment of the health of Canadians.

CIHR Institute of Genetics (IG)
The Institute of Genetics (IG) supports research on the human and model genomes and on all aspects of genetics, basic biochemistry and cell biology related to health and disease, including the translation of knowledge into health policy and practice, and the societal implications of genetic discoveries.

Brain Canada
Brain Canada Foundation is a national non-profit organization that develops and supports collaborative, multidisciplinary, multi-institutional research across the neurosciences. Through partnering with the public, private and voluntary sectors, Brain Canada connects the knowledge and resources available in this area to accelerate neuroscience research and funding and maximize the output of Canada's world-class scientists and researchers.