



2020/21

Grant-in-Aid Submission Guidelines

(Fall 2019 Competition)

28 June 2019

Improving Heart and Brain Health for Women: Award for Mid-Career and Senior Career Investigators

Heart disease and stroke are a leading cause of death among Canadian women. In fact, most Canadian women have at least one risk factor for heart disease and stroke – yet many women are not aware of this threat and do not know how to recognize the symptoms until it is too late. The Canadian Federal Budget 2016 provided for an investment of \$5 million over five years to the Heart and Stroke Foundation to support targeted research on women’s heart health and to promote collaboration between research institutions across the country.

Through this commitment, Heart & Stroke will be offering to Mid-Career and Senior Career investigators, an award as part of the Grant-in-Aid (GIA) program funding specifically targeted towards the improvement of the heart and brain health for women.

Funds are available for up to four (4) awards and are valued at \$50K/year for one year. Offers will be made to highly ranked Mid-Career or Senior Career investigators in this category. Applicants (Mid-Career or Senior Career investigator only) wishing to be considered for this funding envelope MUST check the appropriate box in the application form; MUST complete one of three online training modules (<http://www.cihr-irsc.gc.ca/e/49347.html>), of their choice, offered by the CIHR Institute of Gender and Health and obtain a Certificate of Completion (attach to application); and MUST complete the following additional sections in the application form as it relates to the GIA proposal:

- a. Address how it fits/relates to the Advancing Women’s Heart and Brain Health Research Initiative; and
- b. Describe the potential value to create impact on the health of Canadian women.

Applicants applying for this opportunity will also be considered in the regular pool of GIA applications. However, recipients of this award may not concurrently hold a 2020/21 GIA. Guidelines for application are identical to the GIA except where otherwise indicated. Please note, all other GIA guidelines and requirements apply (e.g., maximum number of applications eligible for submission).

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A. GENERAL INFORMATION

1) Grant-in-Aid

The Heart & Stroke Grant-in-Aid (GIA) program provides operating funds to support important, pertinent, novel research in the areas of heart disease and/or stroke. GIA funding promotes research discovery, exploration and innovation across all health research themes. Knowledge gained from scientific findings contributes to the cardiovascular and cerebrovascular health of Canadians through prevention, treatment and recovery.

2) Application Submission Deadline

Applications for Grant-in-Aid must be submitted **by 16:00 (EDT) 29 August 2019** using the Heart & Stroke's online system (CIRCULink). CIRCULink will not accept submissions after this deadline. **Any applications attempted or submitted after the deadline will NOT be accepted. There will be no appeal process to late submissions. It is the applicant's responsibility** to ensure that a completed application is submitted online via CIRCULink prior to the deadline.

3) Incomplete/Unacceptable Applications

All applicants are strongly cautioned to carefully *read* and *follow* the instructions and requirements outlined in this guideline document. All submissions are considered final, no alterations or changes will be accepted.

In order to maintain the principle of fairness to all applicants, regulations *must* be adhered to in the preparation of the Grant-in-Aid application. *Any* infraction of the rules will lead to the truncation or immediate rejection (**without appeal**) of the application.

Any incomplete applications will not be admissible to the competition.

4) Competition Results

Early notification (not likely to be funded/may or may not be funded/most likely to be funded) will be sent to applicants by **late January 2020** via CIRCULink.

Official/final notifications will be sent to applicants by **the end of March 2020** via CIRCULink.

5) Non-Employee Status

The granting of an award is deemed to establish neither an employer-employee relationship nor a partnership between the grantor and the grantee.

6) Public Information

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

Successful applicants may be asked to help us communicate the importance of research to Heart & Stroke donors and the general public. In this increasingly difficult economic climate, raising funds to support research is becoming progressively more difficult. More than ever, we need to let our donors and the public know that their donations are being used to support world class research. Applicants are well-positioned to explain the role of research in increasing heart health and reducing the burden of heart disease and stroke and may be asked to serve as a spokesperson or to work with us to profile their research.

7) Ethical Requirements

Heart & Stroke requires a copy of all ethics/safety review board approval forms. In the CIRCULink application, please indicate the status of such forms (e.g., “Included”, “Form to be Sent”, “Not applicable”) as they apply to the research proposal. If the application is accepted for funding, funds will be encumbered pending receipt of all required forms. Further, in applying applicant and institutional signatures to this application, applicants are confirming to the Heart & Stroke that the proposed research will not be undertaken until it has been endorsed as ethical and safe – initially and throughout the term of the project, as needed – by the appropriate review body(ies).

Heart & Stroke reserves the right to periodically request additional approval forms during the term of the project. Forms included with the application must be valid at least 30 days beyond the start date of the award.

Applicants must provide acceptable documentation for human and/or animal ethical approval, and biohazard and safety approval as outlined in the Heart & Stroke guidelines.

Applicants must ensure all experiments comply with the following guidelines and host institution research policies, as applicable:

- Tri-Council Policy Statement: *Ethical Conduct for Research Involving Humans*¹.
- Good Clinical Practice (GCP).
- Good Laboratory Practice (GLP).
- In the case of laboratory animal experimentation, the guiding principles and standards enunciated by the Canadian Council on Animal Care².
- Guidelines and standards for biological and chemical hazards as outlined in the Public Health Agency/Canadian Food Inspection Agency’s *Canadian Biosafety Standards and Guidelines*³.
- Any research involving human pluripotent stem cells must adhere to the CIHR *Guidelines for Human Pluripotent Stem Cell Research*⁴. The institution must notify the Heart & Stroke as to the results of the review by the CIHR’s Stem Cell Oversight Committee.

8) Sex and Gender-Based Analysis (SGBA)

Applicants are required to integrate sex and gender-based analysis (SGBA) in their research design. Any application that does not incorporate SGBA must provide a rationale why it would not be relevant to the project. All applicants are strongly encouraged to complete CIHR’s Institute of Gender and Health training modules: <http://www.cihr-irsc.gc.ca/e/49347.html>.

9) Indirect Costs

Heart & Stroke supports only the direct costs of research. No funding is to be used for indirect costs of research. The definition of indirect costs of research for the purposes of this policy is, costs which 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.

¹ See <http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default> for details.

² See http://www.ccac.ca/en/_standards/guidelines

³ See <http://canadianbiosafetystandards.collaboration.gc.ca/index-eng.php> for details.

⁴ See <http://www.cihr-irsc.gc.ca/e/15255.html> for details.

10) Open Access to Research Outputs policy

Heart & Stroke requires that all researchers supported in whole or in part through the Heart & Stroke make their research outputs publicly available as soon as possible but no later than twelve months after the final publication or availability of results. In this policy, the Heart & Stroke defines research outputs as peer-reviewed journal publications, research data, and the results of clinical trials that will not be published in peer-reviewed journals. Compliance with the *Open Access to Research Outputs* policy is a condition of acceptance of all the Heart & Stroke research funding. Please see the Heart & Stroke's Open Access to Research Outputs available at: <http://www.hsf.ca/research/en/heart-stroke-open-access-research-outputs-policy-guidelines> .

11) Publications

A Principal Investigator must acknowledge the support of Heart & Stroke in all scientific publications and presentations related to their award with the following wording: *"This work was supported by a grant-in-aid from the Heart and Stroke Foundation of Canada."* In addition, a copy of publications and presentations must be submitted with each progress and final technical report. To facilitate the implementation of the Heart & Stroke's program for knowledge transfer and exchange and to demonstrate accountability for use of research funding. Heart & Stroke must be notified in advance of the publication date of any major publications and/or press releases arising from research funded by the Heart & Stroke by email at: research@heartandstroke.ca .

12) Four Themes of Health Research

GIA applicants must estimate what proportion of the proposed research and proposed project budget falls under the four health research themes.

The four (4) themes of health research as defined by the Canadian Institutes of Health Research are:

Basic Biomedical (I)

Research with the goal of understanding normal and abnormal human function, at the molecular, cellular, organ system and whole body levels, including the development of tools and techniques to be applied for this purpose; developing new therapies or devices which improve health or the quality of life of individuals, up to the point where they are tested on human subjects. Studies on human subjects that do not have a diagnostic or therapeutic orientation.

Clinical (II)

Research with the goal of improving the diagnosis and treatment (including rehabilitation and palliation) of disease and injury; improving the health and quality of life of individuals as they pass through normal life stages. Research on, or for the treatment of, patients.

Health Services/Systems (III)

Research with the goal of improving the efficiency and effectiveness of health professionals and the health care system, through changes to practice and policy. Health services research is a multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviours affect access to health care, the quality and cost of health care, and ultimately Canadians' health and well-being.

Social, cultural, environmental and population health (IV)

Research with the goal of improving the health of the Canadian population, or of defined sub-populations, through a better understanding of the ways in which social, cultural, environmental, occupational, and economic factors determine health status.

13) Lay Reviewers

Heart & Stroke incorporates lay reviewers on its Scientific Review Committee (SRC) panels in order to increase accountability and transparency of the Heart & Stroke review process and to ensure that the research is aligned with its goals and mission. Heart & Stroke places a high priority on ensuring appropriate lay summaries are submitted as part of each application. If the application is accepted for funding and the lay summary is identified as unsatisfactory, funds will be encumbered pending receipt of a satisfactory lay summary.

14) Financial Gain

Heart & Stroke will not fund a GIA application which results in any form of direct financial profit to investigators or individuals related to that funded research project (e.g., related to commercial interests, or the development of commercial products as an output of the research).

15) Multiple Submissions/ Funded GIA Applications

- a) **Early Career Investigator** is defined as an investigator who is within seven (7) years since the date of his/her first faculty appointment at the Assistant or Clinical Assistant Professor level, at the time of the GIA submission deadline (i.e., by 16:00 EDT on 29 August 2019).

May submit two (2) grant applications (new or renewal) to the 2020/21 GIA competition as either Principal or Co-Principal Investigator.

Applicants may hold up to three (3) Heart & Stroke funded GIAs as Principal and/or Co-Principal Investigator at any time. If an applicant holds more than two (2) ongoing GIA funding as Principal and/or Co-Principal Investigator continuing into the 2020/21 funding year (01 July 2020 to 30 June 2021), no new application can be submitted.

- b) **Mid-Career or Senior Career investigators** are defined as investigators who are either within eight (8) to eighteen (18) years or nineteen (19) plus years respectively since the date of their first faculty appointment at the Assistant or Clinical Assistant Professor level, at the time of the GIA submission deadline (i.e., by 16:00 EDT on 29 August 2019).

May submit only one (1) grant application (new or renewal) to the 2020/21 GIA competition as either Principal or Co-Principal Investigator.

Applicants may hold up to two (2) Heart & Stroke funded GIAs as Principal and/or Co-Principal Investigator at any time. If an applicant holds more than one (1) ongoing GIA funding as Principal and/or Co-Principal Investigator continuing into the 2020/21 funding year (01 July 2020 to 30 June 2021), no new application can be submitted.

16) Applications for Renewal

A grantee wishing to renew an active grant typically makes an application for renewal during the final year of the active grant. **If a grantee applies for a renewal earlier than this, he/she immediately forfeits all remaining years of the active grant, except the current year.**

17) Status of Publications

Manuscripts may not be attached unless they have been submitted or accepted for publication. Any manuscript included with an application must be accompanied by documentation from a journal verifying that the manuscript has been submitted, is accepted for publication, or is in press. **Only updates to the six (6) representative publications attached as part of the proposal** and progress sections of the application will be

accepted. Heart & Stroke will not accept letters indicating confirmation of acceptance for publication of a paper after December 1, 2019.

B. RESEARCH INTEGRITY POLICY

The primary objective of Heart & Stroke's 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. Responsibilities of researchers, institutions and the Heart & Stroke with respect to research integrity are outlined in the **Heart & Stroke: Responsible Conduct of Research** (<http://www.hsf.ca/research/en/node/800>).

As a condition of funding, all Heart & Stroke grant and award recipients agree to comply with the Principles and Responsibilities set out in that policy, and the research misconduct provisions below.

Heart & Stroke defines research misconduct to include actions that are inconsistent with "integrity" as defined by the Framework, and to include such actions as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.⁵

Heart & Stroke will deal with allegations of scientific misconduct in the following manner:

- Any allegation of scientific misconduct will be initially reviewed by the Heart & Stroke to determine whether an investigation is warranted. If it is felt that an investigation is required, the 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 the 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 institute as a result of the findings.
- In cases where misconduct is concluded to have occurred, the 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.

⁵ Wording adopted from the US Department of Health and Human Services, Public Health Service Policies on Research Misconduct, Final Rule. May 17, 2005. Definitions are available from. <https://ori.hhs.gov/definition-misconduct>

C. SPECIFIC PROGRAM INFORMATION

1) Description

Heart & Stroke⁶ offers support for projects in the area of cardiovascular or cerebrovascular research. This support may be provided for a maximum of three years. **All awards become tenable July 1 following announcement of the competition results.**

GIA funds may only be used to support research conducted in Canada.

2) Peer Review

Heart & Stroke's peer review process engages national and international researchers and includes over 180 members of the Scientific Review Committee (SRC). The SRC comprises up to 13 separate panels that ensure in-depth knowledge and expertise in all areas of heart disease and stroke.

Applications to the GIA program which are eligible for funding will be ranked by fixed percentile within each research committee by the SRC. These rankings will drive which applications are put forth to the Budget Review Committee (BRC); a sub-panel of the SRC which works alongside other SRC sub-panels in appraising GIA applications. The BRC consists of a Chair and Deputy Chair, appointed by nomination and approved by the SRC Executive Chair and Vice-Chair. Budget peer reviewers (15-18 members) are selected for their level of expertise related to the mandate of the review committee and their experience in reviewing and evaluating research funding applications. As with membership on all SRC committees, the BRC balances geographical representation and ensures that each committee has the capacity to review applications submitted in English or French.

A pre-relevancy check will be conducted by the SRC Executive to ensure that applications submitted fit squarely into the Heart & Stroke mission, as reflected in the GIA program mandate and SRC sub-panels (see below). **If an application is deemed not directly relevant, Heart & Stroke will exclude it from further review, without appeal.** Therefore, it is important that all applicants clearly justify the direct relevance of their proposed research in the lay summary and application.

SRC Sub-Panels (as they relate to direct heart disease and stroke) include:

- I. **Clinical cardiovascular and cerebrovascular research:** Mechanistic studies and clinical trials/health services research. Areas and expertise include: Mechanistic studies focusing on human studies, clinical trials (therapeutic and surgical), health services, and health care delivery.
- II. **Integrative studies: Genetic manipulations/imaging/bioengineering.** Areas and expertise include: Integrative studies in animal models, diagnostic and imaging technology development in animals and humans, and novel therapeutic strategy and device development in animals, including regenerative approaches.
- III. **Basic science stroke/neurophysiology/neuroregulation.** Areas and expertise include: Stroke, neurophysiology and neural cell biology, and neuroregulation.
- IV. **Cellular biochemistry, pharmacology, and electrophysiology.** Areas and expertise include: Cardiovascular physiology and pathophysiology, cell biology, cell signalling, cellular biochemistry, pharmacology, and electrophysiology. Specifically, the three sub-panels are:
 - a. Molecular, biochemical and cellular physiological approaches to cardiovascular health and disease, vascular disorders.
 - b. Cardiac arrhythmias, cardiac mechanics, electrophysiological approaches to cardiovascular health and disease, ischemia related disorders.
 - c. Cardiovascular complications associated with obesity/diabetes, metabolism, and cardiac development/remodelling.
- V. **Molecular basis of cardiac and vascular function.** Areas and expertise include: Inflammation, immunology, transplantation, and vascular pathology.
- VI. **Thrombosis/lipid and lipoproteins/fundamental nutrition research.** Areas and expertise include: Coagulation, bleeding disorders, thromboembolism, lipid and lipoprotein metabolism, atherogenesis,

⁶ Heart & Stroke will achieve our mission through investing in life-saving research, advocating for healthy public policies, engaging Canadians to make health last, ensuring health equity and partnering with key stakeholders.

atheroma, and its degenerative consequences, and nutritional contribution to atherogenesis, thrombophilia or bleeding disorders.

VII.

- a. **Health services and Public Health.** Areas and expertise include: research that examines the influence, delivery and management of health care services, evaluates and assesses outcomes of health care services, and health services policy and regulation. Research examining influences, predictors, trends, socio-cultural influences on public health and population level health, including health services provision and targets, health equity, access to services and policies affecting public health. Population health interventions.
- b. **Health behaviour; health psychology.** Areas and expertise include: research that examines influences and precursors, including social and environmental influences, on behaviours and on the relationships of behaviours to health outcomes including social, environmental and health psychological factors predicting health status, health behaviours, health outcomes, and the relationships among them. Interventions targeted at specific individuals or sub-populations based on behavioural or psychological manipulations.

The final decision in regards to the placement of the applications rests with the SRC.

3) Eligibility Criteria

a) General

Principal Investigators (and Co-PIs) must have a full-time academic or faculty appointment (i.e., at minimum, at the Assistant or Clinical Assistant Professor level) in Canada at the time of application. The date of first faculty appointment will be based on the date listed in the Common CV (i.e., under Employment).

For any application with a PI and co-PI, should the PI be deemed ineligible – the entire application will be withdrawn from the competition. There will be no appeal process for applications deemed ineligible.

Adjunct applicants at an academic institution must submit a letter from their dean/chair/division director to clarify their specific appointment, i.e., amount of protected time available, local infrastructure in place.

b) Specific - Improving Heart and Brain Health for Women Award: Mid-Career and Senior Career Investigator

In order to be eligible for consideration to this specific opportunity, candidates must:

- i. be either a Mid-Career or Senior Career investigator. Mid-Career or Senior Career investigators are defined as investigators who are either within 8 to 18 years or 19 plus years respectively since the date of their first faculty appointment at the Assistant or Clinical Assistant Professor level, at the time of the GIA submission deadline (i.e., by 16:00 EDT on 29 August 2019).
- ii. check the appropriate box in the application form. The application must target the improvement of the heart and brain health for women;
- iii. The applicant must complete one of three online training modules (<http://www.cihr-irsc.gc.ca/e/49347.html>), of their choice, offered by the CIHR Institute of Gender and Health and obtain a Certificate of Completion. The Certificate of Completion must be submitted with the application.
- iv. complete the following additional sections in the application form as it relates to the GIA proposal:
 - I. Addresses how it fits/relates to the Improving Women's Heart and Brain Health Research Initiative; and
 - II. Describes the potential value to create impact on the health of Canadian women.

Funds are available for up to four (4) awards and are valued at \$50K/year for one year. Offers will be made to highly ranked Mid-Career or Senior Career investigators in this category. Applicants applying for this

opportunity will also be considered in the regular pool of GIA applications. However, recipients of this award may not concurrently hold a 2020/21 GIA.

4) Application

Applications will be completed online using Heart & Stroke's online system, CIRCULink. Heart & Stroke will accept a scanned copy of the original signature uploaded into CIRCULink; electronic signatures will also be accepted. Applicants need not send an original copy of the signature page to Heart & Stroke. (Note: The expectation is that an electronic signature will hold the same weight as an original (wet) signature).

Due to conflict of interest, letters of support from Heart & Stroke are not permitted as part of any application to any Heart & Stroke research competitions.

a. Research Proposal - Guidelines

Applicants are required to attach a detailed research proposal. The research proposal must include the following:

- Hypothesis to be tested;
- Knowledge to date;
- Methods to be used;
- Anticipated results and conclusions;
- Possible problems; and
- Pertinent references.

Submissions must be prepared according to the following guidelines:

Formatting

- Text must be single-spaced, 12-point Times New Roman or 11-point Arial (including labels and descriptions, as well as, items such as figures, tables, charts, photographs).
- Margin of 2 cm (3/4 inch) around the entire page.
- Header:
 - "Research Proposal" (left corner)
 - Applicant Name (right corner)
- Footer:
 - Number pages consecutively
 - Page numbers must be centered

Organization

- The Research Proposal should be predominantly text and is limited to ten (10) pages. **The number of pages should reflect the size and scope of the proposed research.** *Pages beyond the ten (10) page limit will NOT be evaluated by the reviewers.*
- Please note that items such as embedded or appended figures, charts, tables, count toward the ten (10) page limit of the research proposal. To improve the clarity of the grant; items such as figures, charts, tables may be embedded in the research proposal or appended after the references.
- References should be placed at the end of the research proposal and will not count toward the ten (10) page limit.
- Additional supporting documentation such as questionnaires, RCT methods, consent forms may be attached as a separate document (no page restriction).

Failure to adhere to the guidelines above risks the application being deemed unacceptable and removed from the competition.

b. Scientific, Methodological or Budgetary Overlap: Current Funding and Pending or Contemplated Grant Submissions

For each currently funded grant (including CIHR Foundation and Project schemes), grant under submission or in preparation, attach the necessary information to the GIA application that describes whether/how there is any scientific, methodological, or budgetary overlap with the current application (i.e., registration copy from CIHR for Project grant applications). A percentage for the degree of overlap must be provided on the application, where requested, under each of the three (3) categories.

c. Sex (biological) and Gender (socio-cultural) considerations:

Applicants are required to integrate sex and gender-based analysis (SGBA) in their research design. Any application that does not incorporate SGBA must provide a rationale why it would not be relevant to the project. All applicants are strongly encouraged to complete CIHR's Institute of Gender and Health training modules: <http://www.cihr-irsc.gc.ca/e/49347.html>.

d. Budget

Budget Request: Heart & Stroke will not approve budgets exceeding \$100K/year (for a maximum duration of 3 years). Heart & Stroke encourages proposals that are 2-3 years in duration. Only under special circumstances would one (1) year proposals be considered and they must also be fully justified.

Budget Justification

Rigorous justification of proposed spending needs to be provided and will be rigorously reviewed by Heart & Stroke.

Rigorous justification of the budget requires an explanation and rationalization for each budget item. Sufficient information must be included such that it will allow reviewers to assess whether the resources requested are appropriate. Failure to provide detailed information and appropriate justification **may result in budget cuts that could adversely affect the final budget awarded for the project**. Please provide rationale for the quantities, attributes and requirements for the particular people (e.g., name, role) and items requested.

i. Salaries and Benefits:

Heart & Stroke will only provide benefits up to a maximum of 30%. **Heart & Stroke will not cover any salary increases above a 2% annual increase.**

Provide names (if known), categories of employment and proposed salaries (including non-discretionary benefits) of all personnel identified in the budget. Attach a copy of the institutional guidelines relating to requested benefit levels. Briefly describe the responsibilities of each position for which support is requested and attach a brief CV as an appendix for those positions for which an individual has been identified.

Salaries for unnamed research assistants, technicians and research associates should also conform to those of the institution in which the individual is carrying out the research, subject to the approval of Heart & Stroke.

If a PI, co-PI or co-applicant possesses the necessary expertise, no request for salary or benefits can be made for the same/similar expertise without proper justification for such a request.

ii. Summer Students/Graduate Students/Fellows:

Heart & Stroke encourages junior trainees (particularly doctoral students) to be included in the proposed research with a defined and clearly written role (within the project submitted), as well as

properly justified in the budget notes should there be financial implication(s). Stipend levels cannot exceed the maximum stipend levels from the chart below.

Heart & Stroke does not provide additional support for benefits towards summer students, undergraduate students, graduate students, and/or post-doctoral fellows.

Position	Max Annual rate (inclusive of benefits)
Graduate/PhD Student	\$24,000
Post-Doc Fellow, PhD	\$45,000
Post-Doc Fellow, MD	\$55,000
Summer Studentships	\$5,000 (summer)

iii. Research Equipment (including maintenance and facility):

Research equipment is defined as any item (or interrelated collection of items comprising a system) that meets all three (3) of these conditions:

- Non-expendable tangible property;
- Useful life of more than one (1) year; and
- A cost of \$2,000 or more.

For example: A laptop computer that costs less than \$2,000 would be considered as materials or supplies even though it is a non-expendable tangible item with a useful life of more than one year.

A cost quotation must be provided for equipment or service contracts greater than \$5,000. Two (2) competitive quotes as well as letters from an appropriate institutional official documenting the availability and status of similar equipment are required for items costing more than \$15,000.

Provide a breakdown and justification of the items requested. Give details of models, manufacturers, prices and applicable taxes. In addition, for maintenance and/or equipment items listed, indicate:

- The availability and status of similar equipment.
- The anticipated extent of utilization.
- The reasons for choice of specific type, model or service contract, in relation to alternatives.

For equipment or service contracts costing more than \$5,000, attach at least one (1) quotation for cost. For items costing more than \$15,000, attach a letter from the Department Head(s) and/or Research Institute Director(s), that document availability and other details, plus at least two (2) competitive quotes.

Non-adherence to submission of the appropriate cost quotations will negatively affect the final budget.

Maintenance and facility refers to costs associated with purchasing new equipment. Examples would include small renovations such as installation of shelving to facilitate new equipment, plugs required for new computers, and installation contracts.

iv. Experimental Animals:

Include species to be used and sample size justification along with calculations, if applicable.

Provide a breakdown for procurement, breeding, boarding, feeding and wherever possible include a copy of the institution's standardized costs for these tasks as they vary from institution to institution.

v. Materials and Supplies:

Provide details and justify / explain major items. Do not simply list items.

vi. Payments to Study Subjects:

Heart & Stroke allows well justified and reasonable reimbursements for required travel, parking, childcare, honoraria, or other items that would reduce barriers to participation.

vii. Publications:

Heart & Stroke will only provide support up to \$3,000 (\$2,000 for 2-year projects) for the duration of the award, of any application recommended for funding. Proper justification and a brief explanation are required.

All publication requests must be included within the allowable budget of the application.

viii. Other:

Provide justification / explanation for each item listed.

A cost quotation must be provided for any item(s) greater than \$10,000. Two (2) competitive quotes are required for item(s) costing more than \$25,000.

ix. Service Contracts:

Provide justification / explanation for each item listed.

A fully detailed contract for services proposed must be included with application. The service contract is to include:

- Overall explanation of the type of work to be completed (including term of the contract)
- Timelines for the work (broken down by each piece and the deliverables)
- Obligations of each party
- Expenses provided in detail (e.g., including type of work performed, hourly rate of pay/salary FTE, number of hours of work)

Any contracts for work to be done outside of Canada or by a non-Canadian company must fully detail (including a cost quotation) and explain why that organization was chosen and why that work could not be performed by a Canadian alternative.

Applicants requesting funds for services (over \$10K), where the applicant(s) appear to have the expertise to provide such services themselves, must justify why an outside provider is necessary.

x. Travel:

For the purpose of attending or presenting their research at a meeting, conference and or symposia that align with the proposed research:

- Heart & Stroke will only provide support up to \$3,000 for the duration of the award, of any application recommended for funding. Proper justification and a brief explanation of how each activity relates to the proposed research are required. The purpose and estimated cost (up to a maximum of \$3,000) of such travel must be given.
- Travel for this purpose is limited to one individual who are associated with this project but who do not receive remuneration from this project (ideally the PI).

For the purpose of advancing work related to the completion of the project:

- Heart & Stroke will provide travel support that is absolutely essential for the facilitation of work proposed, during the award, of any application recommended for funding. Proper and rigorous justification and a brief explanation of how each activity relates to the proposed research are required.

All travel requests must be included within the allowable budget of the application.

xi. Financial Contributions from Other Sources (if applicable):

Provide a brief explanation of any financial (not in-kind) contribution from other sources, if applicable. Please see section 6 “Partnered Funding”.

5) Clinical Trials

- a. Heart & Stroke regards clinical trials as prospective controlled observations on an incompletely tested new diagnostic or therapeutic technique or device, often in comparison with an accepted one. Randomized interventions and those with clinical end-points would qualify. Applications will be examined for excellence in clinical questions and the appropriateness of the methodology. All clinical trial applications will be reviewed by the appropriate sub-Committee.

For other applications, including clinical studies with patients that seek to refine current characterizations of disease processes (or health) or to explore unresolved questions in human biology by controlled observations or manipulations (or both) of patients or volunteers and their environments (e.g., extrinsic factors such as diet, exercise, stress); these will be reviewed by the appropriate sub-Committee using similar criteria used for the evaluation of other applications.

- b. If surrogate outcomes are used in the trial, the applicant must be fully prepared to support their use.
- c. The requested budget must conform to the funding restrictions as outlined in the guidelines.
- d. Applicants are requested to indicate if their application is a clinical trial.

As part of the post-grants administration process, clinical trials funded by the Heart & Stroke will be monitored on an on-going basis.

6) Partnered Funding

The applicant is required to declare all secured and proposed (i.e., submitted in the same funding cycle) partnered funding at the time of submission. There can be no overlap/duplication in expenses or activities with partnered funding.

For Proposed Partnered Funding (i.e., submitted in the same funding cycle): Heart & Stroke’s peer review panel will provide Heart & Stroke with an opinion as to whether Heart & Stroke portion of the project could proceed independently of the partnered funding, if needed. If recommended by Heart & Stroke’s peer review committee, Heart & Stroke-approved projects with partnered funding would be encumbered pending confirmation of sufficient funding to complete the project, to be provided by the applicant during the encumbrance resolution phase.

Proposed partnered funding MUST be secured by 01 July 2020; otherwise the Heart & Stroke funds will be released to the next highest ranking application (i.e., no deferrals or extensions to accept a GIA offer will be permitted).

Partnership with other funding organizations will be considered. However, please see item #7 Top-up Funding or Duplication of Funding.

Details to include in the Secured and/or Proposed Partnered Funding (i.e., in the same funding cycle) Letter should include:

- Identification of each partner, the specific role and a detailed breakdown of each partner's (secured and/or proposed) contribution, as it relates to the GIA submission.

7) Top-up Funding or Duplication of Funding

Heart & Stroke does not allow top-up funding for applications that have had their budgets reduced by another funding agency.

Heart & Stroke does not permit an applicant to hold a GIA that is similar or comparable to another operating grant from another funding agency.

8) Multi-Centre/Site Application

Where a research project involves multiple centres/sites by reason of location of activity and/or investigators, Multi-Centre/Site GIA applications must demonstrate benefit to all centres/sites involved. It is the responsibility of the applicant to ensure that applications demonstrate the following:

- A high probability of informing policies, practice, programs and/or science.
- Significant "value-added" to perform a particular project across centres/sites.
- A research design reflecting work done in each centre/site.
- Roles and responsibilities of each team member located in each site/centre.
- These projects cannot exceed the maximum allowable requested budget of \$100K/year with a maximum duration of 3 years.

9) Contact Information:

Research Department

Heart & Stroke

110-1525 Carling Avenue

Ottawa, Ontario K1Z 8R9

Tel: (613) 691-4042

Fax: (613) 727-1895

E-mail: research@heartandstroke.ca

Website: www.hsf.ca/research