



GenomeCanada

Guidelines and Evaluation Criteria

for the Competition in

Applied Genomics and Proteomics Research in Human Health

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Genome Canada is a not-for-profit corporation dedicated to developing and implementing a national strategy in genomics and proteomics research for the benefit of all Canadians. By means of investments totalling \$375 million to date from the Government of Canada, Genome Canada has become the primary funding and information resource relating to genomics and proteomics in Canada and has established five Genome Centres across the country (Atlantic, Québec, Ontario, Prairies and British Columbia).

1 OBJECTIVES OF GENOME CANADA

The overriding objective of Genome Canada is to support genomics and proteomics research to enable Canada **to become a world leader** in selected sectors that are of strategic importance to this country, such as health, agriculture, environment, forestry and fisheries.

In order to accomplish this objective, Genome Canada will:

1. Bring together industry, governments, universities, hospitals, research institutes and the public in support of the national genomics and proteomics research program.
2. Through five Genome Centres across Canada (one each in British Columbia, the Prairies, Ontario, Québec and the Atlantic provinces), provide leading-edge technologies to researchers and cross-disciplinary training of the necessary workforce in all genomics and proteomics-related fields.
3. Support large-scale genomics and proteomics projects that draw on existing Canadian strengths and expertise, and whose scale and scope are such that they cannot currently be funded at internationally competitive levels, through other existing mechanisms.
4. Put in place research infrastructure to support the major science and technology platforms essential for the large-scale projects including, but not limited to, functional genomics, proteomics, sequencing, genotyping, bioinformatics and new technology development.
5. Ensure leadership in ethical, environmental, economic, legal and social issues related to genomics (GE³LS).
6. Effectively communicate the results of genomics and proteomics research to the public, thereby helping Canadians to understand the relative risks and rewards of this type of research.
7. Foster Canadian participation in international genomics and proteomics research programs.
8. Encourage investment in genomics and proteomics research by others.
9. Create and realize economic, industrial and social benefits to Canada.

2 BACKGROUND

Five Genome Centres, one for each of the identified regions (British Columbia, the Prairies, Ontario, Québec, and the Atlantic region), were approved for funding in March 2001. The Centres have as their foundation, large-scale research projects and science and technology platforms approved in March 2001 and March 2002. **Contact information for each Centre is presented in Appendix A.**

Genome Canada has funded 57 large-scale research projects and science and technology platforms with a total investment of over \$700 million with partner funding. Research to be undertaken by Centre scientists covers five sectors of strategic importance to Canada (health, agriculture, environment, forestry and fisheries), as well as the ethical, environmental, economic, legal and social issues related to genomics (GE³LS). A list of large-scale projects and science and technology platforms approved for funding in each Centre is available on Genome Canada's web site at www.genomecanada.ca.

3 REQUEST FOR APPLICATIONS (RFA)

3.1 Purpose

The purpose of this RFA is to solicit proposals focusing on the development and application of genomics and proteomics tools to improve the prediction, prevention and treatment of human disease for individuals and populations. In the context of this RFA, the term "tool" includes instruments, technologies, methodologies and strategies.

3.2 Research Scope

The successful research proposals must be directly linked to the delivery of predictive, preventive and/or personalized healthcare to individuals and populations. Preference will be given to those proposals likely to impact human health in the near term, generally within five years. Proposals to study the ethical, environmental, economic, legal and social impacts of applied genomics and proteomics research (GE³LS) on human health will also be considered.

In addition to timeliness, significant emphasis will be placed on the ease with which newly developed tools can be made accessible to clinicians and other healthcare providers. The validation of tools is also eligible for funding.

Examples of projects and areas of application, which might be considered for funding are outlined below.

Prediction and Prevention: The continuing improvement in the quality and cost of genomics and proteomics tools, such as gene and protein microchips, brings with it the promise of identifying and quantifying disease susceptibility more effectively and making diagnoses earlier than is possible today. In some cases, genetic profiling will identify those at risk before disease develops allowing further screening to be focused on susceptible individuals with a timelier introduction of preventative and therapeutic measures. Such an early intervention brings with it the promise of reduced cost, morbidity and mortality.

Using current technology, greater knowledge of an individual's genomic risk profile for disease will provide the knowledge base for the early implementation of cost-effective prevention strategies. Special efforts to enhance existing technologies, introduce new, competitive technologies, reduce per unit costs, and develop piloted predictive algorithms will enable broader use and application of these tools. These optimized technologies can then be used in a wide spectrum of applications often involving genomics surveillance (or detection) followed by the prevention, regulation and evaluation of a clinically important outcome. Pathogenomics and/or microbial genomics, for example, will allow rapid diagnosis, detection, surveillance and molecular risk assessment of pathogens and hosts enabling the appropriate treatment of patients.

Personalized Healthcare: There exists a wide and genetically conferred variability in the way that individuals respond to many drugs ranging from a failure to respond, to the risk of side effects and complications. Genetic differences among individuals account for these often striking clinical differences in drug response. Pharmacogenomics, the coupling of knowledge of individual genetic differences and drug activity, holds the promise of both increasing drug safety and effectiveness while reducing the use of expensive medicines that have limited or even deleterious effects. It has been predicted that the cost savings from these technologies will have a major impact on Canada's annual \$15 billion plus drug consumption. Further savings are anticipated from the reduction in the number of adverse drug reactions and associated decrease in healthcare costs that some now estimate currently cost the Canadian healthcare system more than \$3 billion per year. Similarly, toxicogenomics, the assessment of environmental contaminants, individual sensitivities and the environment-genome interactions would provide tools to identify and implement risk avoidance strategies.

GE³LS: The study of ethical, environmental, economic, legal and social impacts of applied genomics and proteomics research on the Canadian healthcare system will be crucial for its continued strength and sustainability. Econometric and pharmacoeconomic studies, health services, health policy and technology assessment studies related to genomics and proteomics research will be considered if these facilitate more rapid adoption of improved and cost-effective diagnostic approaches to predictive, preventive and personalized healthcare.

The proposals may focus either on the development of existing tools (instruments, technologies, methodologies and strategies), or the development of new and innovative tools. The following list is provided for illustrative purposes and is not an indication of preference or priority. Other tools will be considered on an equal basis.

- Biochips (gene expression profiling, genotyping, chemical synthesis, thermal cycling, sample preparation)
- Bead-based arrays
- Microelectronic arrays
- Proteomics applications
- Medical and diagnostic applications of microarrays
- DNA, RNA, carbohydrate, tissue and cell arrays
- Informatics and statistics of microarrays
- Nanotechnology (nanobiological molecular machines)
- Biophotonics

- Laboratory-on-a-chip (microfluidics)
- Process improvement
- Molecular diagnostics
- High-throughput sequencing (robotics)

Proposals can be transdisciplinary or interdisciplinary, involving researchers from various fields, including but not limited to, biology, biochemistry, biophysics, chemistry, engineering, mathematics, statistics, economics, humanities and the social sciences. In addition, novel, even revolutionary approaches are encouraged, as well as nationally based projects and those establishing international linkages.

4 COMPETITION

Of the \$75 million approved in the 2003 federal budget, up to \$65 million will be made available from Genome Canada for this RFA. The funds will support large-scale genomics and proteomics research projects. Consideration will also be given to requests to expand existing Genome Canada Science & Technology Platforms, if the expansion is required to meet the needs of projects approved in this competition. Projects will be funded for a maximum of three (3) years.

Genome Canada will accept applications from Genome Centres for:

1. Large-scale research projects that satisfy the requirements of this RFA and focus on the development and application of genomics and proteomics tools to improve the prediction, prevention and treatment of human disease for individuals and populations. Genome Canada is seeking proposals that are “genome-wide” and of such scale and scope that they cannot currently be funded at internationally competitive levels through other existing mechanisms. In addition, proposals should take into account any relevant GE³LS issues or considerations.

A proposal for research into the ethical, environmental, economic, legal and social impacts of applied genomics and proteomics research (GE³LS) on human health and the Canadian healthcare system can be submitted as a large-scale project and/or as a component of other projects.

2. Expansion of an existing Genome Canada Science & Technology Platform: Consideration will be given to requests by a Genome Centre for a one-time capital expansion of a previously funded Genome Canada Science & Technology Platform, if such expansion is required to meet the needs of projects approved in this competition.

In order to maximize the effectiveness of Genome Canada to advance genomics and proteomics research in Canada, it may be desirable to provide opportunities for sharing of resources and expertise between Centres. It is possible that large-scale projects from one Centre may require the science and technology platforms available in another Centre. It is also possible that researchers from across Canada and from other countries may collaborate on large-scale projects, sharing technology, knowledge, GE³LS expertise and resources. Genome Canada will strongly encourage and support such arrangements, where desirable.

5 APPLICATION AND EVALUATION PROCEDURES

Requests for funding must be submitted to Genome Canada by a Genome Centre.

Eligible applicants, including researchers from industry, government laboratories, academic institutions and research institutes, interested in submitting an application for a large-scale project must contact a Genome Centre. Requests for expansion of a platform must be made directly to Genome Canada by a Genome Centre.

5.1 Genome Canada Time Lines

Please note that each Genome Centre will have its own time line. Important dates in the Centres' time lines will be on or before the Genome Canada announced dates. Contact the Genome Centres for their time lines.

May 30, 2003	Release of guidelines & evaluation criteria
July 3, 2003	Letter of intent (LOI) receipt date
August 1, 2003	Notification of decision on review of LOIs
November 7, 2003	Receipt of full applications
December 15, 2003	Board decision on due diligence review
Early March, 2004	Peer review meeting
Late March 2004	Board decisions on funding
April 2004	Notification of decision

5.2 Letter of Intent (LOI) - July 3, 2003

A letter of intent (LOI) stage will be used to evaluate the potential proposals for relevance/responsiveness to this RFA. **Individuals interested in submitting an LOI must contact a Genome Centre.**

The LOIs must be received from the Genome Centres by Genome Canada on or before **July 3, 2003**. Each LOI must be presented on the form available at www.genomecanada.ca.

It is the responsibility of the Genome Centre to determine which LOIs to put forward, ensuring each is responsive to the RFA and satisfies the programmatic criteria as defined in Appendix B. The Centres may work together to identify areas of potential synergy between applications from researchers across the country. Genome Canada will publish the titles of the LOIs submitted by each Genome Centre on its website to assist the Genome Centres and researchers in the identification of projects that have potential for collaborations or joint initiatives.

A panel of experts will be established to review the LOIs for their relevance and responsiveness to the RFA, taking into consideration the programmatic evaluation criteria described in Appendix B. **LOIs that do not fit within the research scope of the program as defined by this RFA will not be accepted into the application stage.**

Following the decision, applicants will be provided with written comments on their submission.

5.3 Application for Funding of a Large-Scale Project - November 7, 2003

An application for funding of a large-scale project must be received from the Genome Centre by Genome Canada on or before **November 7, 2003**. The application must be presented on the form available at www.genomecanada.ca and must address the evaluation criteria described in Appendix B.

5.3.1 Due Diligence Review

Genome Canada and its designated consultants will perform a review of the financial and management aspects of the proposed projects, taking into consideration the evaluation criteria described in Appendix B. The review will include a face-to-face meeting with the applicants, the co-funders and the Genome Centre representatives. **Proposals that do not satisfy the established criteria for financial and management aspects will NOT be submitted for peer review.**

Following the decision, applicants will be provided with written comments. Information obtained during the due diligence review of proposals that are submitted for peer review, will be provided to the peer review panel to assist them in their evaluation.

5.3.2 Peer Review

A multidisciplinary panel of international experts will meet in March of 2004 to review the full applications. To assist the panel, written reports will be solicited from external reviewers for each proposal and forwarded to the panel members in advance of their meeting. Information obtained from the letter of intent review and the due diligence review will be available to the review panel in advance of its meeting. The panel will evaluate each application taking into consideration the evaluation criteria (programmatic, scientific, financial and management), as presented in Appendix B. During the meeting there will be an opportunity for the panel members to discuss various aspects of the proposals with the investigators. Genome Canada may adjust the evaluation process where warranted by the complexity of the proposals or other relevant factors.

The review panel will offer recommendations and advice, including budget recommendations, to the Board of Directors of Genome Canada. The Board of Directors will make the final decision on funding for each proposal before March 30, 2004. Following the decision, applicants will be provided with a written evaluation of the strengths and weaknesses of their application.

5.4 Request for Expansion of a Genome Canada Science & Technology Platform

Following the announcement of the competition results in April 2004, a Genome Centre may submit a request for one-time capital expansion of a previously funded Genome Canada Science & Technology Platform. It is the responsibility of the Genome Centre to work with the platform leaders and leaders of the large-scale projects to determine the requirements of the projects approved in this competition. The request must be submitted by the Genome Centre on the form to be provided by Genome Canada.

6 FUNDING

Genome Canada will fund up to 50% of approved eligible costs for new or incremental research activities that are an integral part of the Genome Canada approved project. The Genome Centre and the applicants must work together to secure the remaining 50% of the funding from other sources.

6.1 Eligible Costs

Eligible costs are defined as reasonable and incremental costs for items that directly support the objectives of the Genome Canada approved project. Budgets must **NOT** include items for which funding has already been approved from other sources, unless the request for funding from the other source was made after February 16, 2003 and was specifically requested to support the Genome Canada project.

Eligible costs may include the following:

- i. cost of salaries and fringe benefits for researchers, trainees, technicians, management (e.g., project managers) and support staff needed for the operation of the research infrastructure. Salaries of researchers that are currently funded by their respective institutions are not considered an eligible cost. The actual cost of release time from teaching is eligible, if supported by a letter from the host institution.
- ii. operating costs;
- iii. costs related to the general maintenance of research infrastructure, to be used for carrying out the proposed research;
- iv. support for research into ethical, environmental, economic, legal and social issues related to genomics research (GE³LS);
- v. costs for the communications and public outreach activities related to the project;
- vi. research infrastructure within Canada. As defined in the *Funding Agreement between Genome Canada and the Government of Canada*, research infrastructure means equipment, specimens, scientific collections, computer hardware or software, information databases, communications linkages and intangible property used or to be used primarily for carrying on the research, including housing and installations essential for the use and servicing of the items listed above. This includes reasonable rental and renovation costs for existing buildings and facilities, or costs for new buildings and facilities, essential for the use of those items listed above. The opportunity cost of using existing infrastructure may not be included as an eligible cost.
- vii. reasonable and low administrative costs, not to exceed five percent (5%) of the total budget;
- viii. Associated Development Costs (see Associated Development Costs, Section 6.2); and
- ix. A provision for inflation for salaries, not to exceed two percent (2%), may be included for expenditures in years 2 and 3 of the project.

Payments to foreign persons, for example investigators' salaries, are not considered eligible costs for Genome Canada.

6.2 Associated Development Costs (ADCs)

For this competition, ADCs are to be used to cover the costs of developing and fostering partnerships and relationships between the Genome Centre and host organizations. Although calculated within each project budget, the ADCs are managed by the Genome Centre, and it is the responsibility of the Centre to determine which items to request. Items considered as eligible ADCs for a specific project submitted to this competition include:

- i. Direct costs associated with developing affiliation agreements/partnerships with a host organization (such as legal fees and commercialization office support); and
- ii. Communication, sponsorship, consulting, corporate development or business advisory costs **directly** related to building the relationship with a host organization.

The total Associated Development Costs must not exceed ten per cent (10%) of estimated salaries and fringe benefits for researchers, trainees, technicians and support staff needed for the operation of the research infrastructure.

6.3 Co-funding

Although not required at the LOI stage, at the time of submission of the full application to Genome Canada a co-funding plan must be provided, which includes either a firm commitment for at least 50% of the requested funding for eligible costs of the project, from other sources, or a well-developed and feasible plan for securing such funding. Those applications not meeting this criterion, as determined during the due diligence review and approved by the Board of Directors of Genome Canada, will **NOT** be submitted for peer review.

The full application must include complete documentation for secured or proposed co-funding. Examples of appropriate documentation include: a letter of commitment from a funding source, which, in the case of an industry partner must include a copy of the Board resolution specifying the company's level of funding and terms of commitment; for co-funding from a funding agency, a copy of the research summary, budget summary page, and notice of award (if applicable); and quotes from suppliers. In addition, the applicant must submit written confirmation from the co-funding source acknowledging the use of these funds to co-fund the Genome Canada project.

6.3.1 Eligible Co-funding

- i. Co-funding must be applied for after February 16, 2003 and be for eligible costs specifically requested in the Genome Canada budget in order to be eligible for the purpose of this competition.
- ii. Genome Canada considers any of the following possible co-funding sources, which may be Canadian or foreign, as acceptable.
 - Institutional funds, trust funds, or foundations
 - Departments and agencies of the federal government. There are exceptions. The following agencies are **NOT** considered as eligible co-funding sources: Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council, Social Sciences and Humanities Research Council, and tri-council programs (e.g., the Networks of Centres of Excellence and the Canada Research Chairs)

- Departments and agencies of provincial and municipal governments
 - Firms and corporations
 - Voluntary organizations
 - Individuals
 - Venture capital or other investment funds
- iii. In-kind contributions are defined as non-cash budget items, which can be given a cash value. In-kind contributions may be considered as co-funding if:
- the value can be reasonably determined and supported by documentation;
 - the expenditure represents an item that would otherwise have to be acquired with cash; however, this excludes the use of pre-existing facilities or equipment (i.e., budgets cannot include the opportunity cost of space or equipment);
 - In the case of supplier discounts, amounts will be considered as eligible co-funding if:
 - The amount is above and beyond the standard industry or academic discount; and
 - The amount can be supported by documentation from the supplier's head office (i.e., a letter from a sales representative will not be acceptable).
- iv. The value of previously existing IP transferred to a project is not considered eligible co-funding unless it is a contribution by a supplier of IP (e.g., software license that would otherwise have to be acquired from a third party supplier). Such items must be supported by appropriate documentation from the supplier's head office.

7 ADMINISTRATION

7.1 Commercialization and Benefit Sharing

A clear commercialization process, which includes IP management and ownership, technology transfer and benefit sharing, must be defined and included in the full application (i.e., not required at the LOI stage). In anticipation of a successful outcome, the Genome Centre, potential host organization(s) and co-funding partner(s) should outline general terms that deal with the sharing of future benefits (e.g., equity, royalties, and repayment options, etc.) commensurate with the contributions of the respective parties. The commercialization process will be assessed during the due diligence review.

7.2 Conditions for Release of Genome Canada Funds

The following are the minimum requirements to allow for the disbursement of Genome Canada's quarterly contributions:

- i. Signed agreement (or MOU) that establishes the resolution of major areas, such as, contributions, IP ownership and management, data release, a commercialization process, etc., between the lead organization, the Genome Centre, the researchers and the co-funding partners. The agreement or MOU must be in compliance with the agreement between Genome Canada, the Genome Centre, and third party funders, if applicable.

- ii. Revised budget and milestones, in accordance with the Board approved recommendations of the review panel.
- iii. Appropriate certification for proposals performing research involving human subjects, human stem cells, animals, biohazards, radioactive materials or possible effects on the environment.
- iv. A well-developed and feasible co-funding plan that clearly defines source, amount, timing and justification for eligibility, and is supported by appropriate documentation.
- v. Meet other conditions that may be set by the Board of Directors of Genome Canada.

7.3 Project Readiness

All applicants must demonstrate that they will be in a position to receive Genome Canada funding within six (6) months from notification of approval (see Conditions to Release Genome Canada Funds, Section 7.2). **Genome Canada reserves the right to withdraw funding for any approved project that is not ready to receive funding, or for which a signed agreement has not been secured, within six months from notification of approval.**

7.4 Management of Funding

- i. The agreement between Genome Canada and the Genome Centre will reference financial commitments from other persons, and specify cash flow statements, expected outcomes, comparative benchmarks and monitoring programs.
- ii. As the needs and circumstances of each Centre, the researchers and partner organizations differ, the contracts between these partners will be negotiated individually and need not be identical, but should apply the same general underlying principles as defined in the agreement between Genome Canada and the Genome Centres. Genome Canada's share of the funding for approved projects and platforms will flow from Genome Canada to the Centres. The Genome Centres will manage (e.g., disburse, monitor and report on) the funds for the project.
- iii. If co-funding is secured by way of a binding agreement, and funds can be shown to be available to meet the co-funder's obligations, Genome Canada's contributions can be adjusted to accommodate the timing of the expected receipt of funds from co-funding partners. However, where co-funding sources are not secured, Genome Canada's contribution will be based on 50% of the approved quarterly budget up to the maximum amount approved by the Board.
- iv. Genome Canada will provide funding up to the approved quarterly contribution, a quarter "in advance". Subsequent quarterly advances may be adjusted to account for any unused funding.

7.5 Accountability and Reporting

Each Centre must fulfil the evaluation, audit, accountability and reporting requirements established by Genome Canada, including the provision of information necessary to enable Genome Canada to assess the ongoing performance of the Centre and its activities. It is the

responsibility of the investigators leading the large-scale projects and Science & Technology platforms funded by the Centre to participate in this process. As part of its accountability process, Genome Canada and each Centre must put in place mechanisms to assess the ongoing performance of the projects and platforms in order to determine from time to time whether funding for a project or platform should be continued, reduced, suspended or cancelled.

8 FURTHER INFORMATION

Queries should be directed to:

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Appendix B - Evaluation Criteria

To ensure that the objectives of Genome Canada are met, proposals are assessed against the following four criteria. A threshold of excellence must be exceeded for each criterion. The descriptors following each criterion are not all-inclusive.

A *Programmatic Criteria*

1. Genomics or proteomics focus of the research.
2. “Genome-wide” and of such scale and scope that it could not currently be funded at internationally competitive levels through other existing mechanisms.
3. Development or application of genomics or proteomics “tools” (instruments, technologies, methodologies and strategies) to improve the prediction, prevention or treatment of human disease or the study of ethical, environmental, economic, legal and social impacts of applied genomics and proteomics research (GE³LS) on human health and the Canadian healthcare system.
4. Direct impact on human health.
5. Timeliness of the impact of the research on human health or the Canadian healthcare system.

B *Scientific Criteria*

1. Scientific excellence of the proposed research as affirmed by peer review; demonstration that the project is coordinated, integrated and inclusive; importance and/or originality of the questions posed and expected results; appropriateness of the methods and the proposed analyses of data; appropriateness of the discussion of anticipated difficulties and consideration of alternatives; and demonstration of the way in which the proposed research fits into the international genomics or proteomics research picture (i.e., is it “cutting edge” genomics or proteomics research?).
2. Feasibility of the milestones and proposed objectives and goals.
3. The quality and experience of the applicants affiliated with the proposal: the appropriateness of the training and/or track record of the applicant(s) for the proposed research, in particular, prior contributions to the field of genomics or proteomics research; the importance and originality of the recent productivity of the applicant(s), especially with regards to genomics or proteomics-related problems; and the level of confidence in the ability of the applicant(s) to do the work proposed.
4. The benefits to the health of Canadians or the Canadian healthcare system, which may include economic, industrial and social.

5. Demonstration that research to be carried out builds on existing Canadian strengths and expertise in genomics or proteomics research and/or targets a unique Canadian niche.
6. Demonstration of international research collaborations.
7. The relevance and impact of anticipated results on human health internationally. Will the research allow Canada to become a world leader? How does it compare to research being conducted elsewhere?
8. For projects that have ethical, environmental, economic, legal or social implications, the quality and appropriateness of the plan to address these issues.
9. The potential for research training: excellence of the training program and appropriateness of the training environment to ensure that a sufficient quantity of highly skilled researchers and technicians are available to fuel the demands in genomics or proteomics for the next decade.
10. The quality of the scientific environment in which the work will be done.
11. The extent to which the research proposed will increase the productivity of genomics or proteomics research, and enhance the development of new methods, perspectives and technology to improve Canada's capacity for innovation.

C *Financial Criteria*

1. Budget/Control Processes

- i. The budgeted costs meet the definition of Eligible Costs (Section 6.1).
- ii. The budgeted costs are aligned with the proposed research plan and activities, and the relationship between the proposed costs and potential benefits of the research proposed is evident.
- iii. The reasonableness of a project's budgeted costs.
- iv. The plausibility of the justifications provided for budget items.
- v. The effectiveness of financial and budgetary control processes or mechanisms, (e.g., processes for authorizing purchases, payments and budget adjustments).
- vi. The costs associated with the ramp-up period are reasonable in relation to recruiting, purchasing and installing new equipment, space requirements, and renovations.
- vii. The quality of the documentation and principal financial assumptions, which support the proposed budget.

2. Co-Funding

- i. The proposed co-funding plan complies with the Eligible Co-funding guidelines provided in Sections 6.3 and 6.3.1.

- ii. The feasibility of the co-funding plan, that is, the ability to secure co-funding for eligible costs of the research from other sources. This may be in the form of a commitment to co-fund or a plan for securing such funding.
- iii. The supporting documentation made available, which may include letters of commitment by co-funding sources, quotes from suppliers, grant applications to other funding agencies, or confirmation of grants received.
- iv. The demonstrated relationship between proposed co-funding and the objectives of the project.

D <i>Management Criteria</i>
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- 1. The appropriateness and quality of the management plan, including the effectiveness of the administrative and organizational management structure which addresses, for example, the following:
 - i. The project management plan and accountabilities;
 - ii. The management abilities of the proposed team;
 - iii. The role of key personnel and committees;
 - iv. The frequency of meetings.
- 2. The quality of the plans for making critical decisions or choices about the overall research direction, for example:
 - i. The mechanism for making go/no-go decisions;
 - ii. The evaluation of research progress (e.g., Scientific Advisory Board);
 - iii. The responsibility for making strategic decisions when a consensus is not reached;
 - iv. The discussion of key challenges/roadblocks and plans to address those issues, etc.
- 3. The strategies and implementation plan for forming partnerships and coordinating with Genome Centres, other relevant organizations (industry, governments, universities, hospitals and research institutes) and individuals, regionally, nationally and internationally.
- 4. The effectiveness of the plan for deployment of human resources, equipment and infrastructure, including the initial ramp-up period.
- 5. A plan that summarizes the strategy for communication, public outreach and knowledge dissemination. Consideration of advertising, web communication, participation at conferences, etc.

6. For projects where there is commercial potential:
 - i. The strategy for commercialisation, technology transfer and handling of intellectual property issues;
 - ii. The reasonableness of the proposed general terms that deal with the sharing of future benefits amongst the researchers, participating organizations, co-funding partners and the Genome Centres;
 - iii. An IP policy in place or in draft form, which addresses, for example:
 - Management versus ownership;
 - The sharing of benefits with the researchers, host-organizations, co-funders and the Centres;
 - The expected outputs in terms of publications and patents filed;
 - The dissemination of valuable scientific data/data release policy; and
 - Costs of patent filing and protection.