

# Research Hospital Fund

## Consultation Document

To address today's and tomorrow's health challenges, support is needed for research that will lead to groundbreaking discoveries and knowledge that can be translated quickly and effectively into improved health for Canadians, more effective health services and products, and a better health care system.

Research hospitals are meeting these challenges by forming new, multidisciplinary, and solution-oriented research structures. But Canada's research-hospital community requires, among other things, access to state-of-the-art research infrastructure to compete at the international level and translate its research results in a timely fashion.

The Research Hospital Fund (RHF) is designed to contribute to large-scale, hospital-based research initiatives that take full advantage of state-of-the-art equipment, innovative ways of doing research, and increased research capacity as a result of hiring additional highly qualified personnel. The RHF will help address the needs for further investment in research hospital infrastructure, especially for new and different space by taking a more integrated and multidisciplinary approach to health research. These needs will exceed that which is normally supported under other CFI programs.

### WHAT PROJECTS WILL BE CONSIDERED UNDER THE RHF?

There are two components under the RHF:

- 1) **Large-Scale Institutional Endeavours (LSIE)** that require space and other research infrastructure to support excellent research, training, and knowledge translation in one or more research themes of strategic importance to the hospital. Under this component, research hospitals will be seeking funding from CFI and their partners for infrastructure.
- 2) **Regional/National Clinical Research Initiatives (CRI)** seeking to build and enhance Canada's capacity for clinical research. This component will provide the opportunity to seek funding for infrastructure from the CFI and funding for research, training and operations from the Canadian Institutes of Health Research (CIHR).

Institutions that submit applications to both components will be asked to reference their Regional/National CRI in their applications for Large-Scale Institutional Endeavours and vice versa. [Annex A](#) provides an illustration of the possible relationship between the two components.

Research hospitals will apply to other CFI programs for smaller scale projects which are mainly focused on the acquisition of research infrastructure (equipment, specimens, scientific collections, computer software, information databases, communications linkages) and the space essential to house that infrastructure.

# 1) Large-Scale Institutional Endeavours – Draft Call for Proposals

## WHAT ARE THE OBJECTIVES?

The Large-Scale Institutional Endeavours is designed for large-scale research hospital-based projects that require space and other research infrastructure to support excellent research, training, and knowledge translation in one or more research themes of strategic importance to the hospital.

## WHO IS ELIGIBLE TO APPLY?

An eligible hospital (i.e. corporate entity) may submit an application itself or apply through another institution (e.g. a university). In the event that the applicant is a university, both the university president and the hospital president must sign the application. By signing the application, the hospital president is attesting that the institutional initiative directly serves the research and research training missions of the hospital and its affiliated research institutes.

The CFI will approve a hospital as an eligible recipient if it is a public hospital (as defined by provincial legislation) which has a demonstrable capacity (e.g. a research institute associated to a hospital) to support and conduct research and research training. Specifically, it must demonstrate that it:

- has a research and research training mission;
- has its own researchers or has developed an arrangement with a university for the appointment of researchers, and provides them with the time to conduct research. These researchers must be fully qualified to carry out independent research and have a track record in research;
- has no institutional constraints on the publication of research results;
- has the resources, including on going operating funds, basic facilities, and services to enable its principal researchers to carry out research;
- has administrative structures, policies (e.g. ethical review), and resources to administer research funding or has made arrangements with a university for this administration;
- has **directly** received and administered peer-reviewed research funding or has made arrangements with a university to administer these funds.

Hospitals with less than \$500,000 of total sponsored research funding per year must determine their eligibility with the CFI. Hospitals which are not currently eligible recipients must seek eligibility.

## HOW MUCH FUNDING IS AVAILABLE?

As part of the 2003 Accord on Health Care Renewal with the provinces, the federal government allocated \$500 million to the CFI Research Hospital Fund to be committed by April 2008. The

CFI envisages a contribution in the range of \$330M for Large-Scale Institutional Endeavours. In addition, the CFI will provide funds to contribute towards the operation and maintenance costs of the infrastructure.

## **HOW DO PROJECTS FIT INTO THE HOSPITALS' STRATEGIC RESEARCH PLANS?**

Each research hospital submitting an application must provide an overall strategic research plan. The plan must include the hospital's current and expected research space requirements for the next three to five years. This includes requirements for housing, and the use of existing or to be acquired equipment and accommodation for clinical research, for bringing HQP and researchers together in new and innovative ways, and for taking full advantage of the increased research capacity.

## **HOW SHOULD HOSPITALS ENGAGE THEIR KEY PARTNERS, IN PARTICULAR PROVINCES?**

Hospitals will have to provide evidence that the partners are engaged in the planning and are committed to the project by inviting their views, in particular those from provinces.

Provinces are recognized to be key participants in research infrastructure projects in hospitals. As such, there must be close interactions between the institutions and their provincial government early in the process to take into consideration provincial needs and opportunities. Hospitals are therefore strongly encouraged to discuss their research priorities plan upfront with their respective provinces. The CFI will consider ways to collaborate with the provinces through the review process and funding announcements.

## **WHAT ARE ELIGIBLE COSTS?**

The CFI will provide funding for up to 40% of the eligible infrastructure costs of a project. In-kind contributions from partners and cash expenditures by the institution must have taken place after January 1, 2003. Eligible costs include those described in the [CFI Program Guide](#). In addition, the following costs are eligible:

- Building space beyond that which is essential to house equipment and use research infrastructure. This includes new and different research space to take full advantage of state-of-the-art equipment, new ways of conducting research, and hospitals' increased research capacity as a result of hiring highly qualified research personnel (e.g. office space for researchers, administrative staff and students, space for meeting/conference rooms and space for integrated facilities).
- Communication infrastructure used for research collaboration, the dissemination of research results and research training, beyond that which is essential for the conduct of research activities.

In exceptional circumstances, infrastructure can be located outside an eligible hospital. In such cases, the president of an eligible hospital must attest to and demonstrate that the proposed

approach best meets the needs of the hospital, and is more effective and cost efficient than locating the research infrastructure in the hospital.

It is important to show that sufficient research and operating funds will be available to capitalize on the full potential of the infrastructure.

## **WHAT IS THE APPLICATION PROCESS?**

The CFI will accept a **single application per hospital (i.e. corporate entity)**.

### **How will the CFI use Notifications of Intent (NOIs)?**

The CFI will use the information in the NOI to plan its review process.

### **Full proposals**

The full proposal may comprise a number of modules in which the institution can expand on each research theme(s) for which infrastructure support is sought. Although themes may be linked or independent of one another, the onus will be on the hospital to make the case as to why the infrastructure requested for each theme is essential to support its overall vision and priorities.

Themes will:

- take a multidisciplinary and integrated approach to health research;
- bring researchers and highly qualified personnel together in new and innovative ways; and
- promote collaborations with other institutions and sectors where appropriate to allow for better research, knowledge translation, technology development and improvements in health.

All infrastructure components requested in the application-whether space or other-has to be justified on the basis of the overall research activities involved and their potential benefits.

If the institution is also submitting a [CFI/CIHR - Clinical Research Initiatives](#) request, this should be mentioned in the application, and include an explanation as to how it fits with the overall institutional strategic plan. It should also indicate the overall cost for this component and how it is divided between the CIHR and the CFI aspects. However, there is no need to expand on this aspect in the application, nor to include it in the detailed budget.

Finally, the CFI recognizes that innovative research may require multidisciplinary approaches and contributions from individuals from a variety of institutions or sectors. Therefore the CFI encourages institutions to plan cooperatively to acquire or develop infrastructure, where appropriate. The development of partnerships and cooperative arrangements within the institution and with other public or private organizations should help establish clusters and networks of related infrastructure. This will allow for better research, and more effective and efficient use of available research resources.

## WHAT IS THE REVIEW PROCESS?

### Assessment Criteria

In reviewing the complete applications to the LSIE, the CFI will apply the following three criteria:

1. Quality of research and need for the infrastructure
  - Quality, innovation, and transformative potential of the research
  - Research contributions of the principal user(s) or their potential to capitalize on innovative research opportunities
  - Appropriateness, effectiveness and efficiency of the infrastructure in supporting the proposed research, housing equipment, or bringing researchers and highly qualified personnel together in new and innovative ways
  - Effective management, operation, and maintenance of the infrastructure on an ongoing basis
  
2. Contribution to strengthening the capacity for innovation
  - Enhance the institutional capacity to support excellent research, training and knowledge translation in one or more themes
  - Build institutional, regional or national capacity for innovation and for international competitiveness
  - Increase institutional capacity by attracting and retaining the best researchers or those with the highest potential
  - Create stimulating and enriched environment for training highly qualified personnel
  - Strengthen multidisciplinary approaches, collaborations among researchers (and, where appropriate, collaborations or partnerships with other institutions and sectors) to allow for better research, knowledge translation, and technology development, and for a more effective and efficient use of available resources
  
3. Potential benefits of the research to Canada
  - Support potentially groundbreaking discoveries and generate knowledge that can be translated into improved health for Canadians, more effective health services and products, and a better health care
  - Contribute to job creation and economic growth

### Review process

The CFI will verify each institution's application for eligibility and completeness, and may request additional material to ensure that all essential information is available for the assessment.

The CFI will use a two stage process to review proposals. In the first stage, expert committees will be tasked to evaluate related or similar themes from institutional proposals. Specifically, expert committees will focus their evaluations on the following criteria:

- the innovativeness and transformative nature of the proposed research;
- the proposed research's capacity to enable more integrated, multi-disciplinary approaches to health research;
- research contributions of the principal users and their potential to capitalize on innovative research opportunities;

- the potential to attract and retain the best researchers or those with the highest potential;
- the potential to create a stimulating and enriched environment for training HQP;
- the creation and/or strengthening of collaborations between researchers, and partnerships among institutions and sectors;
- the appropriateness, efficiency and effectiveness of the infrastructure for the proposed research, and for the development of enhanced, integrated facilities.

The expert assessments will then be forwarded to the second stage of the review process which is an international Assessment Committee. The Assessment Committee, which will have broad expertise in health research, health research management, and the use of research results and technology, will focus its evaluations according to the criteria below:

- the effectiveness of the management, operation and maintenance of the infrastructure on an ongoing basis;
- the project's potential to enhance research hospital capacity to undertake integrated, multidisciplinary and problem-oriented health research through innovative structures and partnerships;
- the project's potential for building regional or national capacity for innovation and for international competitiveness in health research;
- the project's potential for translating research results into improvements to the health and quality of Canadians, including the creation of policies and practices, more effective health services and products and a better health care system;
- the project's potential for contributing to job creation and economic growth.

The Assessment Committee will take into account the expert committee reports, the strategic plan of the institution and comments from partners, including provinces, in its own evaluation of the proposals. The Committee will also be informed of the outcome of any related a CFI/CIHR - Clinical Research Initiatives requests. The Assessment Committee recommendations will be transmitted to the CFI Board.

## **HOW WILL THE DECISIONS BE MADE?**

The CFI Board of Directors will make the final decision for each proposal. The final decision on an institutional initiative could be for full funding, partial funding or no funding. Note in this sense that decisions may be made on individual themes.

Summary comments will be provided to the institutions for all proposals.

## 2) National/Regional Clinical Research Initiatives – Joint CFI/CIHR Call for Project Outlines

Clinical research is that part of the continuum of health research which is conducted on human subjects or on materials, specimens, or data derived from human subjects or populations. Clinical research comprises translational research, studies of the mechanisms of health and disease, and clinical trials and observational studies which assess new and current preventive, diagnostic, and therapeutic agents and practices for their efficacy and safety. Recognizing the need and opportunity to strengthen clinical research in Canada, the Canada Foundation for Innovation (CFI) and the Canadian Institutes of Health Research (CIHR) are working in partnership to foster collaboration across institutions, regions, and various research sectors. The agencies are coordinating their efforts and resources to achieve enhanced national strategic goals, increased value for resources deployed, and efficiencies in the application process for institutions, investigators, and referees.

The CFI and CIHR will receive proposals for **regional/national networks** of institutions, with a major focus on building the excellence, national capacity, and critical mass required to allow Canada to become an international leader in clinical research that leads to a better health care system, improved health, and a stronger economy. The CFI will provide funding for research infrastructure under the Research Hospital Fund and CIHR the funding for research, training and operations.

It is expected that the infrastructure requests will take advantage of new genomic, proteomic, and informatics tools, innovative clinical trials methodologies, and integration with the health care system. Multidisciplinary research teams, training programs for clinician-researchers, formal knowledge translation programs, and a strong underlying ethics framework, should be integral components of the proposals.

There could be different approaches to clinical research initiatives, including the following (see detailed description in [Annex B](#)):

- **Clinical research centres** that house equipment and bring researchers and highly qualified personnel together in new and innovative ways, including integrated same-site facilities.
- **Networked clinical research technology platforms** that serve regional/national needs for modern clinical research.

The CFI and CIHR challenge institutions and their investigators to consider other non-traditional models and/or combinations of those outlined above to best meet the overall objective of enhancing clinical research through multidisciplinary and collaborative approaches. The CFI and CIHR wish to maximize the likelihood of capitalizing on innovation and opportunity as conceptualized by investigators, hospitals, and provinces. Accordingly, the CFI and CIHR will consider proposals for clinical research infrastructure that are different from those outlined above, so long as they are consistent with the principles of this initiative.

Institutions that submit applications to both components of the Research Hospital Fund, the National/Regional Clinical Research Initiative and the Large-scale Institutional Endeavours, will

be asked to reference their Large-Scale Institutional Endeavours in their applications for Regional/National CRI and vice versa.

## WHAT ARE THE OBJECTIVES?

- Improve the national infrastructure for Clinical Research
- Develop and sustain Canadian talent in clinical research
- Increase operational funding for clinical research
- Allow for discoveries made in Canada to be further developed and evaluated in Canada, maximizing health and economic benefits

## WHO IS ELIGIBLE TO APPLY?

Only research hospitals eligible to access the Research Hospital Fund can submit combined applications for infrastructure, operational costs, training centres and salary support.

The [eligibility criteria](#) for a research hospital are the same as the ones for the Large-Scale Institutional Endeavours.

In addition, each application must designate a Project Leader. In order to be eligible for this role, the individual must fulfill the eligibility criteria of CIHR's Nominated Principal Applicant. Eligibility criteria for all CIHR research funding programs apply. Please refer to the [Eligibility Requirements for CIHR Grants and Awards](#) regarding the eligibility requirements for individuals and institutions.

## HOW MUCH FUNDING IS AVAILABLE?

As part of the 2003 Accord on Health Care Renewal with the provinces, the federal government allocated \$500 million to the CFI under the Research Hospital Fund to be committed by April 2008. The CFI envisages a contribution in the range of \$100M for the infrastructure component of the CRI.

At least \$50 million will be available from CIHR to support operational costs, salary support and training programs. In addition, the CFI will provide funds to contribute towards the operation and maintenance costs of the infrastructure.

## WHAT ARE CIHR'S INSTITUTES PRIORITIES?

CIHR's 13 Institutes are enthusiastic about this Call for Project Outlines. A list of areas of clinical research that the CIHR Institutes consider important to be explored for consideration as part of this initiative will be part of the final Call for Project Outlines, but proposals **should not be** restricted to these areas.

## HOW DO PROJECTS FIT INTO THE HOSPITALS' STRATEGIC RESEARCH PLANS?

Each research hospital (including its affiliated clinics and community health centres) invited to submit a full application must provide an overall strategic research plan. The plan must include the hospital's current and expected research space requirements for the next three to five years. This includes space to house existing or to be acquired equipment and accommodation for clinical research, for bringing highly qualified personnel (HQP) and researchers together in new and innovative ways, and for taking full advantage of the increased research capacity.

## HOW SHOULD HOSPITALS ENGAGE THEIR KEY PARTNERS, IN PARTICULAR PROVINCES?

Hospitals will have to provide evidence that key partners, in particular provinces, are engaged in the planning and are committed to the project by contributing letters of support and commitment.

Provinces are recognized to be key participants in research infrastructure projects in hospitals. As such, there must be close interactions between the institutions and their provincial government early in the process to take into consideration provincial needs and opportunities. Hospitals are therefore strongly encouraged to discuss their research priorities plan upfront with the relevant ministries and health research funding agencies in their respective provinces. The CFI and CIHR will explore ways to collaborate with the provinces through the review process and funding announcements.

## WHAT ARE ELIGIBLE COSTS?

### CFI

The CFI will provide funding for up to 40% of the eligible infrastructure costs of a project. In-kind contributions from partners and cash expenditures by the institution must have taken place after January 1, 2003. [Eligible costs](#) for the CFI under this component will be the same as it is for the Large-Scale Institutional Endeavours.

### CIHR

For the operational costs, applicants should review [Use of Grant Funds](#) and [Eligibility of Expenses, Employment under Grants](#) within the General Guidelines for All Research Grants for a complete listing and description of allowable costs and activities.

For the training centre component of the Clinical Research Centre, applicants should review the [Training Program Grant Guide](#) and CIHR's guidelines on [Eligibility of Expenses, Employment under Grants](#) for a complete listing and description of allowable costs and activities.

## WHAT IS THE APPLICATION PROCESS?

The CFI and CIHR expect institutions to closely work with one another to ensure that a coordinated approach is followed when submitting project outlines for regional/national networks. As mentioned previously, two models have emerged as a result of consultation with the community, but CIHR and the CFI also encourage institutions to explore different

approaches from those two models described in [Annex B](#), taking into account the goals of the Fund and the CRI evaluation criteria.

The project outline must be accompanied by a covering letter signed by the Presidents/CEOs (or their authorized signatories) of all the institutions that will receive funding through the initiative. This letter should include the title of the program, the specific program applied to (Centre, Platform, or other model), the name of the project leader and of the lead institution.

The project outline should be **no more than 5 pages** of written text (12 PT font and 1 inch margins) and must address the following points:

- an overview of the objectives of the clinical research program, its innovative and multi-disciplinary nature and planned activities, and the anticipated impact of the program on the health of Canadians and other socio-economic benefits to Canada;
- an explanation of how this clinical infrastructure will build on and complement other investments already made at the regional, national and international levels, and allow for new and different activities to advance and enhance the achievements of the research program, and how this resource will be made available to researchers, regionally, nationally and internationally, where appropriate;
- an overview of the training opportunities for clinical researchers and other highly qualified personnel (HQP) and, where appropriate, how training centres located in different places plan to interact/coordinate with one another;
- the nature and extent of the collaboration among investigators across the country, with the anticipated value added to the research program through the formation of this collaboration;
- the approach for the knowledge translation strategy to ensure the desired impact;

The structure of the Project Outline should follow the order of the items above. An additional 2 pages of diagrams or illustrations can also be included with the Project Outline.

## WHAT IS THE REVIEW PROCESS?

### Assessment Criteria

In reviewing the project outlines, the CFI and CIHR will apply the following three criteria:

1. **Quality of research and need for the infrastructure**
  - Quality, innovation, and transformative potential of the research that could not be performed otherwise
  - Appropriateness, effectiveness and efficiency of the infrastructure in supporting the proposed research, housing equipment, or bringing researchers and highly qualified personnel together
2. **Contribution to strengthening the capacity for innovation**
  - Build regional or national capacity for innovation and excellence in clinical research and for international competitiveness
  - Create stimulating and enriched environment for training clinical researchers and other highly qualified personnel and to support high quality clinician-scientists
  - Strengthen multidisciplinary approaches, collaborations among clinician-researchers, and collaborations or partnerships with other institutions and sectors to allow for

better research, knowledge translation, and technology development, and for a more effective and efficient use of available resources

### **3. Potential benefits of the research to Canada**

- Generate knowledge that can be translated into improved health for Canadians, more effective health services and products, and a better health care system
- Contribute to job creation and economic growth

### **Review process**

The CFI and CIHR will undertake a joint review of the project outlines to select those that show the most promise, and invite full proposals. To do this review, an international Assessment Committee, with broad expertise in clinical research and clinical research management will be set up. In addition, the CFI and CIHR will strive to achieve a balanced representation of gender, region and research sector. Collectively, the Committee will be competent to review applications in both official languages.

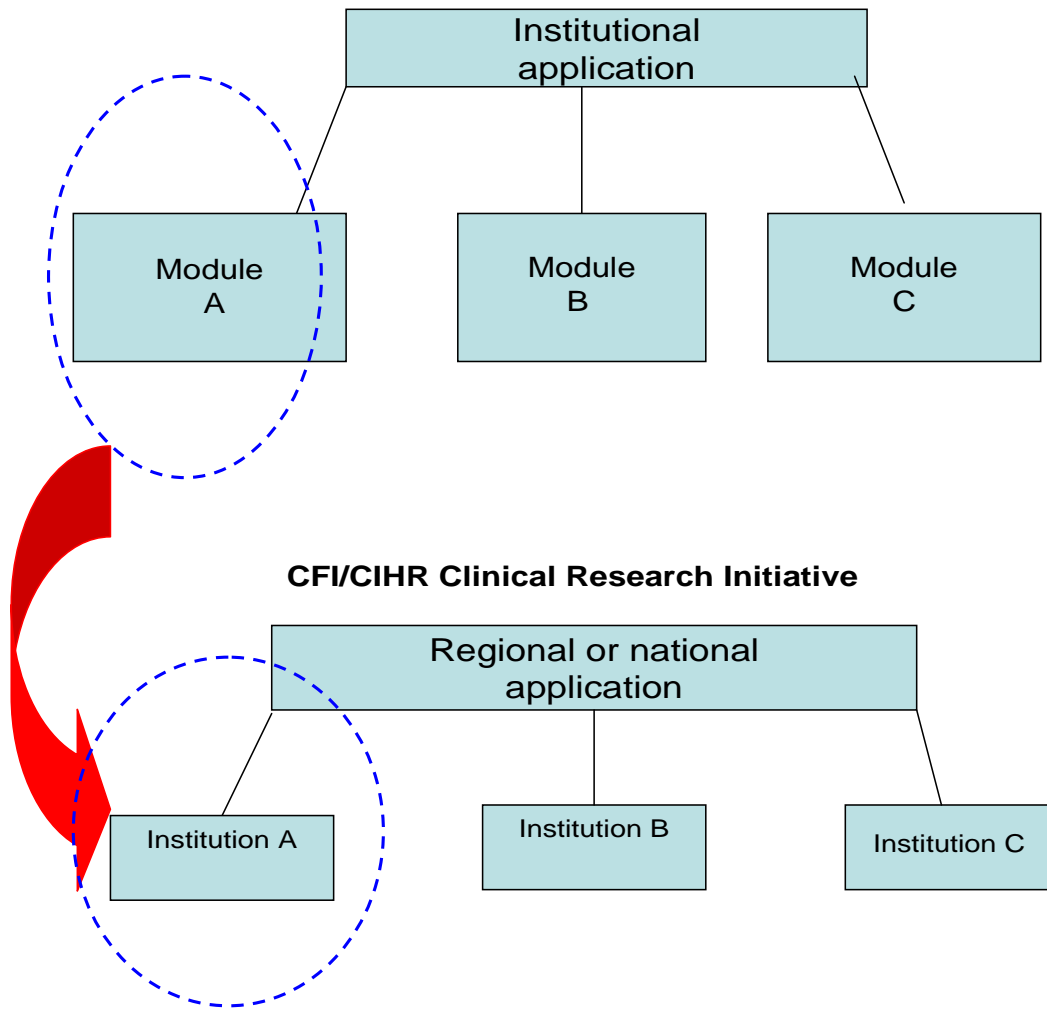
Consultation with individual institutions and consideration of a variety of strategic approaches to maximize the opportunity for the creation of national/regional clinical research infrastructure across the country and range of health issues will be initiated following the review of the Project Outlines. The institution and project leader will be informed of the outcome of the review process.

### **WHAT WILL BE THE APPLICATION PROCESS FOR FULL APPLICATIONS?**

Institutions invited to submit a full application to the CRI will be provided with detailed instructions regarding the requirements for this process.

ANNEX A

**Research Hospital Fund**



## **ANNEX B**

Following extensive consultation by CIHR, two types of infrastructure have been identified by the clinical research community. However, it is recognized that the required infrastructure needs may potentially be addressed by other models and/or combinations of those outlined below. The CFI and CIHR wish to maximize the likelihood of capitalizing on innovation and opportunity as conceptualized by investigators, hospitals, and provinces. Accordingly the CFI and CIHR will consider proposals for clinical research infrastructure that are different from those outlined below, as long as they are consistent with the principles of the initiative.

### **1) Clinical Research Centres**

Nationally networked centres that will be located within research hospitals and that will have the capacity for excellent clinical research, including all phases of clinical trial development, training, and knowledge translation.

These centres will have the necessary infrastructure and critical mass of clinical researchers to enable leading-edge advances of national and international impact. Depending upon regional strengths and opportunities, some centres with strong basic biomedical research will focus on translational research, facilitating Phase 1 and 2 clinical trials. Others will have close interactions with health care systems/services and population health research. Regional hub-and-spoke relationships will broaden the reach and influence of each centre, which will be networked with other clinical research centres across the country.

This Canadian model will incorporate some of the philosophy of the US' National Institutes of Health (NIH) General Clinical Research Centres and specialty clinical research centres, but will be more oriented to the future of clinical research (multidisciplinarity: crossing all 4 themes of biomedical, clinical, health systems/policy and population health; and engagement of the community and referring centres) and its interactions will extend regionally and nationally. A key feature of these research centres will be technologically and organizationally state-of-the-art networking which links the centres and dramatically increases the critical mass of Canada's clinical research endeavour. The CIHR will provide partial salary support for several clinician-scientists and support a clinician-researcher training program in each centre. There will be a requirement for programs of knowledge translation as an important part of the mission of each Centre.

### **2) Networked Clinical Research Technology Platforms**

Examples of such Platforms include clinical trials methods centres and cutting edge tissue/databanks with linked molecular and imaging platforms which position Canada to become a global leader in clinical research.

These platforms would offer technology support to research projects funded by CIHR and others on a cost-recovery basis. Formal networking, clinical research training, and knowledge translation would be integral to these technology platforms. The salary support of highly qualified personnel (e.g., biostatisticians for clinical trial method centres) will be available through this model. At least two general types of technology platforms are needed:

- **Methods centres** provide clinical trials support (protocol development, case report forms, data management, reports and analysis, regulatory advice, and management).
- **Wet and dry human data banks** are concerned with the collection, curation, and management of secure, high-quality, ethically appropriate, and readily available data. These platforms would provide tissue and serum repositories with standard collection and storage procedures, and modern analytical and diagnostic capabilities. The establishment of such infrastructure is at a very preliminary stage in Canada and yet the availability of standardized human biologicals and other data is vital to modern clinical research.