

**AGENDA**

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***OPEN SESSION***

1. MINUTES OF PREVIOUS MEETING – FEBRUARY 10, 2021 (OPEN SESSION)

2. BUSINESS ARISING

3. CHAIR'S COMMENTS AND UPDATE

4. PROPOSAL FOR THE ESTABLISHMENT OF THE CENTRE FOR  
EXCELLENCE IN PROTECTIVE EQUIPMENT AND MATERIALS (CEPEM)

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[Centre for Excellence in Protective Equipment and Materials \(CEPEM\)  
\(APPROVAL\)](#)

5. PROPOSED REVISIONS TO THE GUIDELINES FOR THE GOVERNANCE AND  
REVIEW OF RESEARCH INSTITUTES, CENTRES AND GROUPS

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[Guidelines for the Governance and Review of Research Institutes, Centres  
and Groups Revisions \(APPROVAL\)](#)

6. OTHER BUSINESS

DATE: April 9, 2021

TO: University Planning Committee

FROM: Dr. Karen Mossman, Vice-President, Research



RE: **Centre for Excellence in Protective Equipment and Materials (CEPEM)**

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The Committee on Research Institutes and Centres has reviewed the attached Proposal for the Centre for Excellence in Protective Equipment and Materials (CEPEM) as per the policies and guidelines, and has been unanimously approved.

Please include this as an agenda item for the next University Planning Committee Meeting on April 21, 2021. Dr. Andy Knights and Dr. Ravi Selveganapathy will be available to attend the University Planning Committee meeting to discuss the proposed Centre in further detail. Please note that the appointment recommendation of Dr. Ravi Selveganapathy as the inaugural Director of CEPEM is also being submitted to Senate Committees on Appointments for the April 26, 2021 meeting.

KM:jt

Attach.

cc: Provost and Vice-President (Academic)  
Vice-Provost and Dean of Graduate Studies  
Dean of Engineering  
University Secretariat and Freedom of Information and Protection of Privacy Officer

## Template for the Establishment of a McMaster Research Institute or Centre

Please provide the following documentation, in keeping with the [Guidelines for the Governance and Review of Research Institutes, Centres and Groups](#)

To be recognized as a formal McMaster Centre or Institute, a proposal for consideration must be submitted to the Office of the Vice-President (Research) and approved by the following McMaster Committees and Governing Boards:

1. Committee on Research Centres and Institutes (CRI)
2. University Planning Committee (UPC)
3. Senate
4. Board of Governors (BofG)

The CRI will comprise the following: VPR (as Chair), the Provost (VP Academic), the Dean of Graduate Studies, the University Secretary, and the Faculty Deans relevant to the specific Institute or Centre. The CRI generally takes approximately two to three weeks to review and provide comments.

After CRI approval, the proposal is submitted to the other committees and boards which could take approximately two months to reach BofG for approval. Following proposal approval, paperwork to appoint a Centre/Institute Director should then be submitted following appropriate policies. For a listing of governance meeting dates, please visit: <https://secretariat.mcmaster.ca/meetings/meeting-dates/>

### **Proposal Outline/Template**

**Overview** Please complete the “Overview” on page 2 of this document

**Proposal** Please complete a Proposal under the following headings (more details are provided on page 3):

- A. Background
- B. Objectives and Proposed Activities
- C. Rationale for Establishment of the Research Centre or Institute
- D. Criteria for expanding the membership beyond what is shown in the Overview
- E. A detailed business plan that includes:
  - i. Financial needs
  - ii. Anticipated and Secured sources of support
  - iii. Space needs
  - iv. Human resource needs of the Research Institute or Centre

The business plan should align with and expand upon that provided in Appendix A: Budget.

- F. Organizational Structure - (see examples included in this document)
- G. Plans for term review

**Appendix A** Budget including costs and sources of funds

**Additional appendices to be added could include:**

- List of current funded research projects
- List of planned grant applications

Proposal for the Establishment of....

an Institute ☐ a Centre ☒

Official Name of Research

Institute or Centre

CENTRE FOR EXCELLENCE IN PROTECTIVE EQUIPMENT AND MATERIALS (CEPEM)

Submitted by

PROF. P. RAVI SELVAGANAPATHY, FACULTY OF ENGINEERING

**Core Members** Please define what constitutes a "core member" for this Institute or centre:

Definition: core members are the leading experts required to oversee each area of research/operations. Since March 2020, this team has been leading and coordinating the activities that CEPEM would be formalizing through this Centre.

Name	Faculty	Expertise
<b>P. RAVI SELVAGANAPATHY</b> Professor, Mechanical and Biomedical Engineering, Tier 1 Canada Research Chair in Biomicrofluidics	ENGINEERING	CENTRE DIRECTOR
<b>ISHWAR K. PURI</b> Dean & Professor, Mechanical Engineering	ENGINEERING	CHAIR, MANAGEMENT (LEADS) TEAM
<b>CHARLES DE LANNOY</b> Assistant Professor, Chemical Engineering	ENGINEERING	SUSTAINABILITY LEAD
<b>ZEINAB HOSSEINIDoust</b> Assistant Professor, Chemical and Biomedical Engineering	ENGINEERING	STANDARDS LEAD
<b>DAVID LATULIPPE</b> Associate Professor, Chemical Engineering	ENGINEERING	TESTING LEAD
<b>JOHN PRESTON</b> ADR & Professor, Engineering Physics	ENGINEERING	MATERIALS LEAD
<b>RAKESH SAHU</b> Adjunct Assistant Professor, Materials Science and Engineering	ENGINEERING	DESIGN LEAD
<b>MICHAEL THOMPSON</b> AD Graduate & Professor, Chemical Engineering	ENGINEERING	MANUFACTURING LEAD
<b>ALISON FOX-ROBICHAUD</b> Professor, Medicine	FACULTY OF HEALTH SCIENCES	CLINICIAN, MEDICAL LEAD
<b>CATHERINE CLASE</b> Associate Professor, Medicine, Nephrology; Health Research Methods, Evidence, and Impact	FACULTY OF HEALTH SCIENCES	CLINICIAN, MEDICAL LEAD
<b>MYRNA DOLOVICH</b> Professor, Medicine, Division of Respiratory	FACULTY OF HEALTH SCIENCES	CLINICIAN, MEDICAL LEAD

**Associate Members** Please define what constitutes an "associate member" for this Institute or Centre.

Definition: This encompasses the ~20 faculty members that have been engaged in research projects in partnership with the core members. Their research has been foundational to the development of the Centre's activities.

Name	Faculty	Expertise
SEE APPENDIX 1 – ASSOCIATE MEMBER LIST		

<b>Space Needs</b>	Sq. Ft	New space required?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
	1750	Location?	ABB 1 <sup>ST</sup> FL CHEM WING (RM #108)	Confirmed	<input checked="" type="checkbox"/>	Proposed
		Space cost allocation covered by lead Faculty?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

If no, specify: \_\_\_\_\_

<b>Plans for Organizational Review</b>	Frequency of Internal:	Once every five years
	Frequency of External:	Once every five years

<i>Please provide names below and check box to verify that approval has been obtained from each:</i>		Check box
Department Chair/ Area Director	Marilyn Lightstone, Chair, Dept. Mechanical Engineering	<input checked="" type="checkbox"/>
Faculty Dean or Director of Administration	Ishwar K. Puri (Dean), Nancy Balfoort (Director, Administration)	<input checked="" type="checkbox"/>
Other (specify)	John Preston (ADR)	<input checked="" type="checkbox"/>

#### A. Background:

- What events led to this proposal for a new Centre/Institute?**

The COVID-19 pandemic, which has thrown global supply chains into chaos and jeopardized the reliable sourcing of masks and other personal protective equipment (PPE) needed for frontline health care professionals, long term care workers and the general public, has also brought about a renaissance in Canadian manufacturing of these products. A nascent industry for manufacturing filter materials, masks, gowns, face shields, air purification products and allied products has quickly developed over the past year (2020). Many of the companies in this industry had no prior experience in PPE manufacturing and pivoted to this industry from apparel or automotive manufacturing. A team of researchers (>20) from McMaster quickly responded in March of 2020 to assist these companies and the government in this area by developing design, manufacturing, testing and validation expertise for filter materials, face masks and other PPE. This initiative, funded by the Faculty of Engineering, quickly attracted a large number of companies (<40) and government agencies (e.g. NRC and Ontario Procurement) seeking assistance in various aspects of developing PPE locally. This collaborative effort led to several companies producing millions of PPE with Health Canada approval and eased the PPE supply chain issues in Canada. Our team has become the leading academic group interacting with Canadian companies in this area. During this collaborative effort, our team identified several areas of PPE design, manufacturing, materials, testing and validation that could benefit from research and development (R&D). A new Centre of Excellence for Protective Equipment and Materials (CEPEM) will solidify these initial efforts and enable us to conduct R&D to produce next generation PPE that can benefit all the industry and governmental partners as well as the broader public.

- How do those events relate to academic/research priorities?**

From manufacturing to materials, the current PPE industry has not incorporated the latest advancements in technology into its product development and its standards are dated. The scope for technological innovation in this industry is high. We have identified several thematic research areas that could lead to innovation in this industry, which closely align with existing research priorities at McMaster. These include 1) evidence-based design of new PPE; 2) advanced nanotechnology-based manufacturing; 3) incorporation of new functional materials in PPE; 4) new testing and validation methods; 5) evidence-based standards for PPE; and 6) methods for recycling and reuse to minimize environmental damage. As CEPEM, we have assembled a diverse team whose research interests and expertise are aptly suited to contribute to these thematic areas of research. They are already working with several industrial/governmental partners and have applied for and were awarded multiple research grants. The crystallization of these efforts into a Centre of Excellence will further enhance the visibility of the work and position McMaster as a leading university advancing knowledge and producing evidence in this fast-growing area of research and development.

In addition, due to the rapid growth of this industry in Canada, there is a critical shortage of trained personnel within industry and government with expertise in this area. The formation of a Centre will provide the organizational capacity to produce the first graduate level training program in protective equipment and materials in Canada. In addition, it can also serve as a forum for the industry, government and the general public to interact and jointly direct the development of research and technology in this fast-developing sector of the economy.

- ***How will creating this Centre/Institute improve and enhance research that will address these priorities?***

The formation of a Centre will provide a forum for researchers, industry participants, government officials and NGOs both within and external to McMaster to interact, share expertise, build teams to address larger multi-dimensional research problems, define industry standards, raise issues of long-term impact such as environmental effects of widespread PPE usage and seek wholistic solutions that span disciplinary boundaries. The Centre will also provide a high level of visibility to the research activities on-going at McMaster while attracting industry and governmental partners both from within Canada and internationally to further advance research and development in thematic areas. The organizational structure provided by the Centre will allow us to address research challenges that are multi-disciplinary and beyond the expertise of a small group of collaborating researchers. Finally, the Centre will provide a means to interact with other institutions (both governmental and non-governmental) internationally to share expertise and knowledge.

The Centre will host the most advanced infrastructure and equipment for research and development of PPE and other protective equipment in Canada. A recent proposal from the CEPEM to Ontario Together funding has been approved and this will facilitate the establishment of the core infrastructure. The infrastructure will provide the researchers affiliated with the Centre access to the equipment to further research in this area. It will also attract companies interested in the development of next generation PPE and enable them to use this infrastructure to collaborate with the members of the Centre and participate in research projects through various research funding mechanisms available at the provincial and federal levels. The Centre will host an annual meeting that will provide a forum for all industry members, governmental representatives, researchers and students to meet, interact and discuss the state of the industry and chart a roadmap for future technological development in this area. Finally, the Centre will also establish collaborations with other such Centres internationally to facilitate student and researcher exchanges in the future.

## **B. Objectives and Proposed Activities:**

### ***i. Objectives***

- The main objective of the Centre is to serve as the nucleus of research and development activities in the area of protective materials and equipment in Canada. Sub-objectives include 1) developing a world leading advanced infrastructure and equipment platform for research and development in this area; 2) developing an educational training program for high quality personnel in this fast-emerging area; and 3) bringing together a critical mass of various stakeholders from academia, industry and government to facilitate the rapid development of knowledge, know-how and trained personnel.
- ***Discuss impact on key stakeholders***  
Ours is currently the only team available in Canada that can provide comprehensive research, development, manufacturing, testing and validation assistance to newly established manufacturers of PPE and guide them to create value added products that can provide competitive edge to them in global markets while also serving Canadian needs.

McMaster rapidly pivoted to support Ontario companies that wanted to help meet Ontario's Personal Protective Equipment (PPE) needs. Since its creation, CEPEM has been assisting >40 companies with R&D in design, manufacture and testing of PPE. We are currently the largest and most comprehensive academic Centre with this capability. Several companies (Niko apparel, Woodbridge, Vitacore, Whitebird) have partnered with us and transitioned to manufacturing PPE, running stable production operations, manufacturing tens of thousands of units per week, helping to meet domestic demand. This collaborative effort led to several companies producing millions of PPE with Health Canada approval and eased the PPE supply chain issues in Canada. Our team has become the leading academic group interacting with Canadian companies in this area. Many companies (RONCO,

Swenco, Big Nano etcetera) are in various stages of development of PPE with our assistance. We are assisting with new meltblown and nanofiber production in Canada which will benefit all manufacturing operations. We also operate a comprehensive testing facility and have assisted companies in optimizing their products and develop their own test facilities. This has led to job creation and retention. Finally, we are developing new standards for PPE which will enable Canada to become a leader in this area.

In addition, CEPPEM has served as a forum for researchers from McMaster and other universities to collaborate on research related to protective equipment and materials. Research on PPEs was non-existent at McMaster and the Centre played a significant role in fostering collaborations from a diverse team in this area. The Centre will continue to foster such collaborative work and expand beyond PPEs into other areas of protective materials and equipment.

- **Potential for collaboration**

*HIGH:* CEPPEM will be a critical resource for Ontario companies hoping to either pivot or engage in PPE design and manufacture. CEPPEM will be unique in Ontario and in Canada and will be a hub for the newly emerging PPE industry. CEPPEM's mission is perfectly aligned with the supply chain needs of the Province of Ontario and the entire country. Both the provincial and federal governments have made a conscious decision to in-source the manufacture of critically needed PPE. Since it is a new industry in Canada, manufacturers need considerable support in design, manufacturing and testing of their products. CEPPEM is, on a day-to-day basis, consulting with all the major players in the newly emerging industry and assisting them to improve their capabilities and R&D activities. This work will enable manufacturers to produce high quality PPE, ensuring we can in-source production within Canada protecting the province and the country from supply chain shocks in the future. It will also result in new networks for our researchers within industry and government that can lead to myriad other opportunities.

## **ii. Proposed Activities**

- **Research Projects**

The activities of CEPPEM will be focused on the following thematic areas, all designed based on the needs of our industry and governmental partners:

- 1) Design and Development of PPE: Existing PPE, such as face masks and face shields, were not specifically designed for medical use and have dated designs that don't incorporate the latest advancement in materials and manufacturing technology. Research at the Centre will focus on design and develop the next generation of PPE that use functional materials and incorporate the needs and requirements of medical professionals, industrial workers or the general public.
- 2) Advanced Manufacturing: A significant effort within the Centre will be on the development of new advanced manufacturing processes for meltblown and electrospun materials to produce functional hybrid composites that will enable high performance of protective equipment.
- 3) Functional Materials: Currently, the materials used in protective materials are simple polymers such as polypropylene. One of the focus areas is the development of new materials such as polymer blends and additives that can provide additional functional properties such as antimicrobial, antiviral, self cleaning, air purifying, pathogen and chemical sensing, active water and blood repelling, humidity and thermal control.
- 4) Testing and validation: A core area within the Centre will be a well-validated and robust testing facility capable of performing assessments on barrier properties (air flow resistance, particulate and bacterial filtration efficiency, quantitative fit testing, aerosol distribution visualization), mechanical integrity (tensile, bulge, adhesion, pull, flexural and fatigue) and materials properties (microscopic structure, pore size, fiber uniformity, composition, leaching, degradation).
- 5) Standards: Current standards for PPE are not intended or specifically designed with their medical uses in mind. The Centre will work with national agencies to define Canadian and international standards for testing of PPE.

- 6) Sustainability: A key long-term focus of the Centre will be the development of PPE using natural polymers such as cellulose and with biodegradable properties that can avoid use of fossil fuels in their manufacture and limit use of petroleum derived materials and contribution to climate change.

Some of the specific projects that the members of the Centre are currently pursuing include:

- 1) Development of next generation face shields
- 2) Development of viral filtration standards
- 3) Evaluation of cloth masks and development of standards
- 4) Development of universal fitting adapter for respirators
- 5) Next generation manufacturing for nanofilters
- 6) Antibacterial and Antiviral nanofilters
- 7) New anti bacterial and antiviral non-woven materials
- 8) Air purifying HVAC systems
- 9) Integration of sensors in PPE
- 10) Generating evidence for appropriate PPE use in medical settings
- 11) Generating evidence for appropriate PPE use in public settings

- **Educational outreach**

The educational mission of the Centre will be exemplified through the following activities:

- Workshops, conferences, presentations
- Industry, faculty guest lectures, seminars, colloquia
- Supporting Co-op work terms for undergraduate and graduate students
- Supporting NSERC USRA and Dean's Excellence summer research placements
- Graduate student training

**C. Rationale for Establishment of the Research Centre or Institute:**

- ***Why is there a need for this Centre/Institute?***

The recent COVID pandemic has provided a stark reminder that Canada is excessively dependent on global supply chains that risk becoming fragile or overwhelmed in the event of adverse impacts. There has been a strategic reassessment at both the provincial and the federal level to localize some of the manufacturing relating to protective equipment and this has led to a rapid emergence of new companies both local and international manufacturing this equipment in Canada. This new industry in Canada lacks research and development support as well as high quality trained personnel that are needed to make it world class and to develop new products with advanced technology. The Centre is designed to meet this need and to serve as a nucleus for the fast-emerging industry.

The Centre has received a \$1.2 Million award from the Ontario Together Fund to establish infrastructure to develop research and training program in the area of protective materials. This funding and the associated expertise make CEPEN the leading Centre in Canada and the world devoted to research and training in all aspects of protective equipment and materials.

Further, a forum or venue where industry, academia, governmental agencies and the public can come together and discuss challenges, opportunities, outlook and vision for this area does not exist in Canada. CEPEN will serve as the hub for interaction and will bring together industrial partners from across the value chain from equipment manufacturers, material manufacturers and suppliers to PPE manufacturers and companies involved in testing and validation. In the future, the CEPEN will assist with the setting up of an industry association, partner with governmental agencies and standards associations to formulate regulations. It will also provide expertise to chart public policy in this area. Finally, CEPEN will be critical in forming international collaborations with similar Centres and institute elsewhere and facilitate international exchange both for graduate students as well as for researchers and faculty members.



- ***Discuss the alignment with McMaster's Strategic Research Plan***

CEPEM's mandate, to employ advanced manufacturing knowledge and techniques in partnership with government and industry to develop next-generation protective equipment from sustainable materials for the purpose of advancing global health and fostering economic prosperity, directly aligns with the overarching themes of the McMaster Strategic Research Plan and contributes to the advancement of many of its specific core research initiatives. Each of the thematic research areas described in Section B.ii pertain to a specific core initiative within the Plan, for example:

Advanced Materials and Manufacturing

Our research program will focus on the design and development of next generation PPE that provide superior performance in filtration and will incorporate functional materials that confer antiviral, antibacterial, air purifying and sensing functions. Advanced manufacturing methods that integrate the new materials in a scalable and cost-effective manner will be developed.

Equitable, Prosperous and Sustainable Societies

CEPEM seeks to facilitate innovative knowledge transfer to enable Canadian companies to pivot their operations in response to COVID-19 and future needs. Canadian standards will be developed in collaboration with the National Research Council (NRC) and Canadian Standards Association (CSA), thereby affecting local, provincial and national policy and municipalities' ability to respond to needs and protect their citizens. New approaches for incorporation of environmentally sustainable materials for protective equipment will be developed.

Understanding and Responding to Infectious Disease, Addressing the Growing Burden of Chronic Disease

The CEPEM team and partners have deep expertise in various aspects of human health and the research generated by the group has far reaching applications for healthcare practitioners across a variety of sectors. The knowledge generated through the process of identifying and testing new functional materials and their properties for antimicrobial, antiviral, self cleaning, air purifying, pathogen and chemical sensing, active water and blood repelling, humidity and thermal control applications, has far research application for the further study of additional viruses, infectious diseases and other chronic diseases. The design and development of new PPE can also serve to enhance the equipment, tools and devices used by medical practitioners, first responders and patients with a broad range of respiratory and protective needs.

- ***Discuss the expected regional, provincial, national, global impact***

The funding will assist CEPEM in sustaining and enhancing the number of interactions with local, national and global industries and it will help our industrial partners in developing and optimizing their products so they can get them to market faster. The funding also helps with generating new technology that will increase their competitive edge over products from other jurisdictions.

Since mid-March, CEPEM has served as a resource for Canadian companies (>40) in validating materials, designs and developing new methods of production of the filter materials to overcome supply chain bottle necks. For example, we have assisted Woodbridge (Level 3 - Health Canada approval obtained), Vitacore (N95 – Health Canada approval obtained) and Niko (Level 1). These and other companies are producing millions of masks per week in Canada. CEPEM accelerated their technology development and adoption process. We are currently assisting manufacturers (RONCO, Swenco, Ontario Die, Aztex, Redwood Classics, Big-nano, Crossover, Stitch-it, Myant, etc) on production and serve as a resource for integrated testing and validation. These will lead to high-paying manufacturing jobs in Ontario. CEPEM has a comprehensive test facility comprising of breathability, particulate filtration efficiency, bacterial filtration efficiency, blood splatter resistance and fit testing. We are creating new tests for mechanical reliability, aerosol distribution, viral filtration and anti-viral resistance. We are developing new technology and providing Ontario companies with intellectual property helping them make superior products and enabling them to compete in the global marketplace. We are assisting the Government of Ontario in testing and validating their supplies of PPE and can also assist other provinces and the federal

government. Our Centre is the only one currently available in Canada that can provide comprehensive research, development, manufacturing, testing and validation assistance to newly established manufacturers of PPE and guide them to create value added products that can provide competitive edge to them in global markets while also serving Canadian needs.

CEPEM will expand beyond McMaster to include members from various universities in Canada who are interested in research and training in the area of protective equipment and materials. Already, we have members from the University of Toronto (see associated members list) and the interest is likely to expand as this sector of the economy grows. We envision forming a national network of interested researchers which will facilitate research funding support from the federal government in this area. Finally, CEPEM will also collaborate in research and participate in exchange programs with similar Centres around the world in various areas of research within protective equipment and materials.

**D. Criteria for expanding the membership:**

- ***Could other academia, industry and government partners be added to membership at a later date?***

Yes. As the value proposition of the CEPEM becomes evident, the avenues for alternative funding that will allow the CEPEM to become self-sustaining will increase as will the user base. A key driver for the CEPEM is to sustain and enhance the number of interactions with industry and to help our industrial partners in developing and optimizing their products and get them to market faster. We also anticipate that additional funding will be leveraged to help generate new technology that will increase their competitive edge over products from other jurisdictions. Further, it follows that the expertise of CEPEM membership will necessarily broaden to include members with significant expertise in areas such as health and bioinnovation, advanced manufacturing and materials, business, entrepreneurship and commercialization, and the Canadian and global regulatory frameworks and mechanisms both internal and external to the University and at various levels of government and industry. These partners will also help to bring in additional funding, through grants and fee-for-service contracts.

- ***If so, what are the expectations and criteria for membership?***

- **Faculty members:** The main expectation for faculty members who wish to become members is that they hold expertise related to protective equipment and materials in one of the thematic areas of research outlined above. Another expectation is willingness to collaborate with other members of the Centre and to contribute to the Centre's operations through the use of equipment in the Centre (user fees) as well as including operational cost in proposals that they write in the area of protective equipment and materials. Members will also be expected to contribute their expertise to the training program that will be setup in the future.
- **Industry Partners:** Industry partners in the area of protective equipment and materials will be made associate members and are expected to participate/support projects (grants, donations as well as contribute to HQP Training (grad students, coop placements) Some of the industry partners will be invited to participate on the industry advisory committee for the Centre to help drive its direction.

**E. Detailed business plan:**

- **Financial needs:**
  - ***Discuss/explain operating budget and attach Appendix A (Budget template)***

The capital cost is approximately 1.6 million. 1.2 million has been provided by the Province via the Ontario Together Fund. 0.2 million has been provided by McMaster Engineering and an additional 0.2 million will be sought from the University Research Infrastructure Oversight Board, as CEPEM will function as a core platform at McMaster.

The Centre is expected to have an operating budget of \$400,000 annually at steady state. This budget will support a research staff (\$100,000/annum) to take care of core equipment in the Centre related to manufacturing and will also serve as the lab manager. It will also support another research staff (\$100,000/annum) to take care of the testing and validation equipment and will also serve as the business development manager. The Centre also anticipates a capital equipment and materials budget of \$100,000/annum.

- ***What is the amount of funding required?***

This will be raised in several ways. We anticipate that \$100,000/annum will be a revenue to the Centre from the user fees from academic projects as well as materials budget from those project that use the equipment in the Centre. Another \$70,000/annum will be from user fees of equipment from external users (industry). Finally, we anticipate incorporating \$130,000/annum in research staff support in the various proposals that the members will write for research funding involving equipment associated with the Centre. User fee rates will be in line with other core facilities at McMaster, making CEPPEM affordable, but allowing the Centre to be sustainable in the long run.

- **Anticipated and secured sources of support:**

- ***Start-up funds?***

- During the initial start up phase the Centre will require an injection of \$400,000. The faculty of engineering has already contributed \$200,000 to the Centre to build the initial testing infrastructure. We will apply for core facility status for the Centre and seek the remaining \$200,000 from the central funds that the VP research office has setup to support core facilities. The Ontario Together funding that the Centre has obtained will require a matching contribution of \$404,000 from McMaster internal sources which these two contributions together will be able to provide.

- ***Secured:*** In addition to the start-up funds, members of CEPPEM have secured more than \$2 million in funding over the past 9 months, for infrastructure support as well as to conduct research:

- Ontario Together Fund – CEPPEM – PI: Ravi Selvaganapathy - \$1,212,000 - This funding will support the buildup of infrastructure for manufacturing of non-woven materials, functional textiles and smart materials for application in protective equipment.
- Department of National Defense - Cold Plasma for Super Sanitizing Indoor Workplace and Sensitive Equipment – PI: Ravi Selvaganapathy - \$200,000 - This funding is to support research and product development for Defense Canada to develop a cold plasma-based treatment that can render many of the contact surfaces to be antibacterial and antiviral.
- CIHR- Establishing A Research Platform for Investigating and Optimizing PPE Filtration/Barrier Efficiencies Against Aerosolized Bacteria and Viruses in Clinical Healthcare Settings – PI: Zeinab Hosseiniidoust - \$287,000 - this grant is for the development of new test methods to evaluate bacterial and viral filtration properties of masks.
- Ontario Together - Effectiveness of Masks in Limiting COVID-19 Transmission – PI: Benzong Zhao - \$105,000 - This grant is to visualize aerosol distribution in free space and to use it as a tool to determine effectiveness of PPE.
- Department of National Defense - RepelWrap: a self-cleaning plastic wrap for keeping sensitive equipment and workplaces pathogen-free - PI: Leyla Soleymani - \$200,000 - This funding is to support development of pathogen-resistant materials for healthcare and other applications.

- ***Anticipated:***

- FedDev: Strengthening Canada's Supply Chain through Technology Adoption to Create Impact Hub (iHub): Centre for Adoption of Digital and Electrified Technologies (CEPEM funding – \$2,200,000): CEPPEM is part of a larger ask to FEDDEV from various research groups in McMaster. CEPPEM funding request is 1/5<sup>th</sup> of the total ask.

- NSERC/OCE: We are in the process of writing several research proposals with company partners to support the research activities in the Centre.
- **Space needs:**
  - ***Please expand on the detail from the “overview” page, identifying the existing or new space requirements for the Centre or Institute, noting whether the Faculty Dean has approved use of that space for this purpose.***

CEPEM requires space to house equipment for manufacturing of PPE, its testing, characterization and validation as well as for aerosol visualization.

CEPEM has been provided with ~1750 sqft of space in the renovated ABB first floor to house the equipment that is currently being purchased through the Ontario Together grant and another 200 sq ft for graduate students. The ABB space will be the main facility which will house all the equipment related to testing and validation. These include equipment for particulate filtration, bacterial filtration, breathability testing, flame testing and mechanical testing. It will also support some of the manufacturing equipment such as the roll to roll electrospinning and the melt electrowriting equipment. It will house a biological safety laboratory that will be capable of handling BSL 2 viruses and bacteria.

In addition, some equipment will be housed in other areas within the Faculty. Some manufacturing equipment will be located within the polymer processing laboratory in MMRI (JHE 106). This lab is suited for handling high temperature polymers that is required for equipment for melt blowing. In addition, some of the components that are being purchased are add-on equipment to convert the twin screw extruder in MMRI into a melt blowing unit and therefore it will be housed there.

Finally, the aerosol visualization lab will be housed in ABB tower. This will be 150 sq ft space that will be used to visualize aerosol generation and distribution in open spaces using laser illumination system.
  - ***Identify the plans for the location and coverage of the space costs. Has this been approved by the Faculty Dean?***

The Faculty of Engineering’s Director, Finance and Administration is leading the planning for the required facility to be situated on the first floor of ABB, Chem Wing. The plans have been approved and costs will be covered by the Faculty of Engineering.
- **Human Resource needs:**
  - ***Explain how the day-to-day operations will be managed.***
    - A core team of six along with the Centre manager will facilitate the day-to-day operation and management of the Centre. These include the Centre director (Dr. Ravi Selvaganapathy), Design lead (Dr. Rakesh Sahu), Manufacturing lead (Dr. Michael Thompson), Materials lead (Dr. John Preston), Testing lead (Dr. David Latulippe), Standards lead (Dr. Hosseinidoust) and sustainability lead (Dr. de Lannoy). In addition, the Dean of Engineering (Dr. Puri) will serve as the Chair of the management team.
    - The day-to-day management and maintenance of the equipment will benefit from the established procedures at the MMRI as well as the CEPEM for equipment access, user fees, maintenance of equipment and priority of access to users. Projects related to COVID-19 research will have a reduced rate and top priority for access to the equipment.
  - ***Will there be hiring of employees?***
    - Yes. Two research staff will be hired who will share technical duties as well as managerial ones. One research staff will be assigned to take care of core equipment in the Centre related to manufacturing and will also serve as the Centre (lab) manager. Another research staff will take care of the testing and validation equipment and will also serve as the business development manager.

- **Use of students?**

- Graduate and undergraduate students belonging to the research groups of the member faculty will have an opportunity to work on the projects associated with the Centre. Student participation in the Centre's activities will be hands-on; meaning student researchers will be playing a vital role in the operation of the centre in collaboration with faculty and staff. In addition to their own research activities, student researchers will be involved in centre governance, maintenance and identifying new strategic opportunities. Specifically, senior graduate students will be assigned super user roles for specific equipment and will provide training to newer graduate students interested in the use of the equipment. They will also participate in maintaining the equipment as well as in maintaining user logs, SOPs and safety regulations associated with the equipment. Some of the students will be members of the user group that will be involved in the continuous improvement process at the Centre designed to increase the effectiveness of equipment usage and suggest any modifications in the processes or procedure that will facilitate that.

- **Add detail regarding roles of research and administrative personnel**

- The Centre manager will be in charge of the day-to-day operations of the Centre. Specifically, they will be in charge of the lab access, lab safety, equipment access and billing. In addition, they will also lead the training of graduate students and external users for equipment associated with manufacturing as well as facilitating access to these equipment. They will further be responsible for the maintenance of the equipment and its repair in case the equipment breaks down.
- Another research staff will lead the training of graduate students and external users for equipment associated with testing and validation as well as facilitating access to these equipment. They will further be responsible for the maintenance of the equipment and its repair in case the equipment breaks down. Further, they will be responsible for interacting with company partners, reaching out to new companies and governmental agencies for partnerships as well as facilitating collaborations with other research Centres internationally.

## F. Organizational Structure

*If a potential inaugural director is named in the proposal, ensure that appropriate Senate Committee on Appointments (SCA) paperwork and governance approvals are submitted after Centre/Institute approval.*

The Engineering ADR Office will facilitate SCA paperwork and establishment as a Core Facility.

### **Director: P. Ravi Selvaganapathy**

*An Institute and a Centre is led by its Director, who is normally appointed for a five-year term.*

### **Advisory Committee:**

*The Director establishes an Advisory Committee (AC) whose purpose is to provide advice to the Director with regard to scientific or scholarly priorities and direction for the Institute or Centre. The AC is chosen by the Director, and is consulted at least every two years, or more frequently at the discretion of the Director.*

- **Please list Committee members who have agreed to serve or who will be approached.**

The advisory committee will consist of:

- John Preston (Engineering Physics)
- Representative from National Research Council (NRC)
- Representative from Canadian Standards Association (CSA)
- 2 Representatives from industry (RONCO, Vitacore)

- 2 Representatives from Academia
  - Prof. Orlando Rojas, Dept. Chemistry, University of British Columbia
  - Prof. Cynthia Goh, Dept. Chemistry, University of Toronto

- **Governing Board and Role in Annual Review:**

***For Centres:** Final authority for all matters regarding the direction and operation of the Centre rests with the Dean of the Faculty appropriate to the Centre, or with the VPR for Centres for whom a substantial fraction of their membership is drawn from more than one Faculty. The Dean (or VPR) or designate does not report to Senate, and instead (in the case of the Dean) reports to the VPR for information only. In all other respects its governance structure is that of an Institute which resides principally within a single Faculty. The Centre's GB is normally chaired by the appropriate Dean (or VPR) or designate and is composed of the Chairs (or designates) of the Departments most affected by the success or failure of the Centre. The GB should monitor the activity of Centres every year.*

The CEPEM Director will provide an annual report to the governing board ahead of the annual review

- **Please list Board members who have agreed to serve or who will be approached for either the Institute or Centre.**

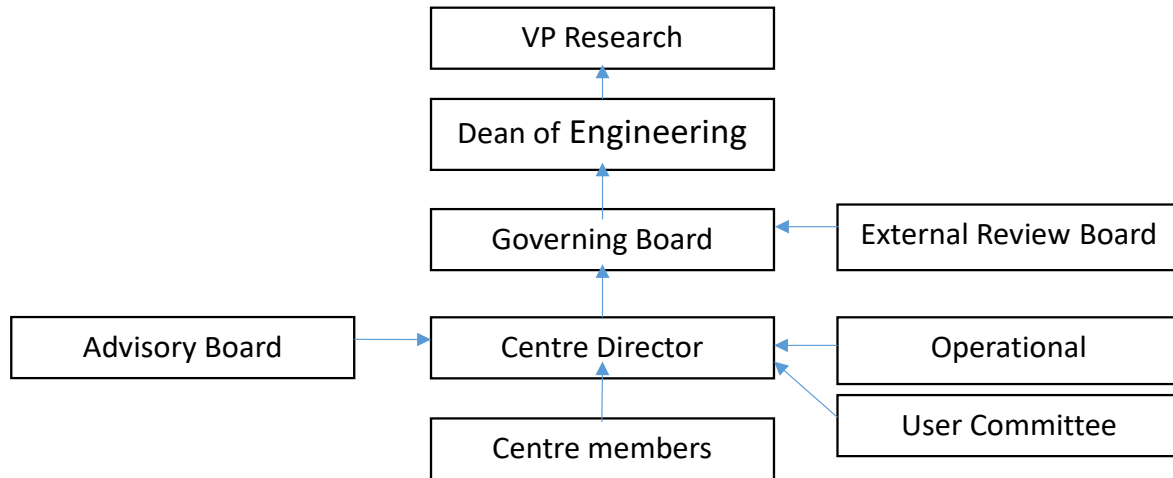
The Governing board will consist of:

- Dean, Faculty of Engineering (or delegate)
- Engineering Department Chairs: Mechanical Engineering, Chemical Engineering, Engineering Physics, Materials Science and Engineering

**User Committee:** This will consist of the top five users (graduate students and post docs) of the Centre's equipment as well as two external users in addition to the two research staff. The user committee will meet once every six months and chart a continuous improvement process for optimizing the usage of equipment in the lab.

**Operational committee:** This will consist of the lab director, theme leads and the two research staff. The operational committee will meet quarterly to determine the operational issues arising, new membership, health and safety as well as financial matters including budget and usage charges. It will also be responsible for a training program that will be initiated by the Centre in the future.

**Organizational Chart - Reporting Lines for University Centres:**



**G. Plan for Five Year External Review**

- ***Please provide a plan for an end of term (usually five year) external review for the Institute or Centre.***

We will model the plans for the review and the meeting on those of existing Senate-approved Centres and will work with the Office of the VPR to ensure plans are in alignment with University expectations.

- *Please provide suggestions and rationale for the composition of the External Review Board which will be determined by the Governing Board. For example: two academics, one government, one private sector individual.*

Membership will be determined in line with university policy at the time of the review.

- *The Director will complete a detailed report which is provided to the External Review Board. The ERB will assess the RCI performance. Please provide some aspects that might be reviewed, for example: operations/financials, research projects, engagement with industry/government, etc.*

A report will be developed and provided ahead of the review, which will include (but not be limited to) operations/financials, research projects, engagement with industry/government, educational outreach/student engagement and HQP training.

- *Please see Review of Institutes/Review of Centres expectations which can be found at <https://secretariat.mcmaster.ca/app/uploads/Governance-and-Review-of-Research-Institutes-Centres-and-Groups-Guidelines-for-the.pdf>*

## APPENDIX 1: ASSOCIATED MEMBER LIST

FIRST NAME	LAST NAME	FACULTY	DEPARTMENT/AFFILIATION
CARLOS	FILIBE	ENGINEERING	CHEMICAL ENGINEERING
TODD	HOARE	ENGINEERING	CHEMICAL ENGINEERING
HEATHER	SHEARDOWN	ENGINEERING	CHEMICAL ENGINEERING
BOYANG	ZHANG	ENGINEERING	CHEMICAL ENGINEERING
WAEI	EL-DAKHAKHNI	ENGINEERING	CIVIL ENGINEERING
MOHAMED	ELTORKI	ENGINEERING	CIVIL ENGINEERING
MOHAMMED	EZZELDIN	ENGINEERING	CIVIL ENGINEERING
BENZHONG	ZHAO	ENGINEERING	CIVIL ENGINEERING
MICHAEL	NOSEWORTHY	ENGINEERING	ELECTRICAL & COMPUTER ENGINEERING, BIOMEDICAL ENGINEERING
QIYIN	FANG	ENGINEERING	ENGINEERING PHYSICS
LEYLA	SOLEYMANI	ENGINEERING	ENGINEERING PHYSICS
KATHRYN	GRANDFIELD	ENGINEERING	MATERIALS SCIENCE & ENGINEERING
TOHID	DIDAR	ENGINEERING	MECHANICAL ENGINEERING
MO	ELBESTAWI	ENGINEERING	MECHANICAL ENGINEERING
GREGORY	WOHL	ENGINEERING	MECHANICAL ENGINEERING
COLIN	MCDONALD	ENGINEERING	MECHANICAL ENGINEERING, ENG 1
NABIL	BASSIM	ENGINEERING	CCEM, MATERIALS SCIENCE & ENGINEERING,
ANDY	KNIGHTS	ENGINEERING	CEDT, ENGINEERING PHYSICS
SUVOJIT	GHOSH	CIRC/FYELABS	CIRC
MATT	LUKAS	ENGINEERING	HATCH CENTRE FOR EXPERIENTIAL LEARNING
JIM	CLEAVER	ENGINEERING	MACHINE SHOP, MECHANICAL ENG
JOHN	COLENBRANDER	ENGINEERING	MACHINE SHOP, MECHANICAL ENG
MARK	MACKENZIE	ENGINEERING	MACHINE SHOP, MECHANICAL ENG
SIMON	OOMEN-HURST	ENGINEERING	MMRI, MECHANICAL ENGINEERING
STEVEN	REMILLI	ENGINEERING	MMRI, MECHANICAL ENGINEERING
BRADY	SEMPLE	ENGINEERING	MMRI, MECHANICAL ENGINEERING
STEPHEN	VELDHUIS	ENGINEERING	MMRI, MECHANICAL ENGINEERING
MICHELLE	MACDONALD	HEALTH SCIENCES	BIOCHEMISTRY & BIOMEDICAL SCIENCES, IBOMED
CHAGLA	ZAIN	HEALTH SCIENCES	MEDICINE
JENNIFER	ROBERTSON	HEALTH SCIENCES	MEDICINE
JOSEPH	HAYWARD	HEALTH SCIENCES	RADIOLOGY
MICHAEL	BROOK	SCIENCE	CHEMISTRY
ANDREA	FEINLE	SCIENCE	CHEMISTRY
DARKO	LJUBIC	SCIENCE	CHEMISTRY
BRYAN	HERECHUK (HHS)	HAMILTON HEALTH SCIENCES	DIRECTOR, QUALITY & VALUE IMPROVEMENT AT HAMILTON HEALTH SCIENCES
FIROUZI	DARIUSH	RONCO SAFETY	RSCH DEVELOPMENT PRODUCT MGR
CYNTHIA	GOH	UNIVERSITY OF TORONTO	CHEMISTRY
FRANK	GU	UNIVERSITY OF TORONTO	CHEMICAL ENGINEERING



# APPENDIX A

## Research Centre or Institute Budget Template

Please include additional detail in Proposal if necessary

	2021	2022	2023	2024	2025	Total	\$ Secured	\$ Anticipated
OPENING BALANCE/CARRY FORWARD		\$ 125,965	\$ 210,929	\$ 295,894	\$ 380,859		\$ 200,000	\$ 200,000

REVENUE - indicate whether secured or anticipated	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total	\$ Secured	\$ Anticipated
Please ensure that any anticipated revenue from grant funding will only support costs eligible for that grant and note funding available for indirect or general operations.								
Internal User Fees		\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 400,000		\$ 400,000
Materials & Supplies (from internal user grants)	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000		\$ 500,000
External User Fees		\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 280,000		\$ 280,000
Ontario Together Fund - Equipment	\$ 1,200,000					\$ 1,200,000	\$ 1,200,000	
Faculty of Engineering OTF	\$ 200,000					\$ 200,000	\$ 200,000	
Core Facilities contribution	\$ 200,000					\$ 200,000		\$ 200,000
Contribution of rsch staff salary from grants by core CEPem members	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 130,000	\$ 650,000		\$ 650,000
Faculty of Engineering ABB Space Renovation	\$ 100,000					\$ 100,000	\$ 100,000	
<b>TOTAL REVENUE</b>	<b>\$ 1,930,000</b>	<b>\$ 400,000</b>	<b>\$ 400,000</b>	<b>\$ 400,000</b>	<b>\$ 400,000</b>	<b>\$ 3,530,000</b>	<b>\$ 1,500,000</b>	<b>\$ 2,030,000</b>
EXPENSES	2021	2022	2023	2024	2025	Total	\$ Secured	\$ Anticipated
<b>Administrative Expenses: (add rows as required)</b>								
Administrative Personell						\$ -		
Research Engineer I (Business Dev + Testing/Validation)	25,000	25,000	25,000	25,000	25,000	\$ 125,000		
Research Engineering II (Lab Mgr + Core Equipment)	25,000	25,000	25,000	25,000	25,000	\$ 125,000		
Office Supplies:						\$ -		
standard office supplies	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 5,000		
Office Equipment:						\$ -		
Computing Needs	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 5,000		
Travel:						\$ -		
advisory, governing board meetings (annual to start)	\$ -	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 16,000		
External review every 5 years					\$ 4,000	\$ 4,000		
Meeting expenses:						\$ -		
(anticipating a return to campus, hosting industry/partners...)	\$ 500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 6,500		
Workshops, hosted seminars		\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 10,000		
Advisory/Governing Board Meetings (reports, catering, other expenses)	\$ -	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 10,000		
Communications:						\$ -		
reports, publications, advertisements, website	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 5,000		
Renovations:						\$ -		
ABB Space to accomodate new equipment	\$ 100,000					\$ 100,000		
Ongoing costs for space:						\$ -		
Phone	\$ 35.30	\$ 35.30	\$ 35.30	\$ 35.30	\$ 35.30	\$ 177		
TBC - renovation not yet complete.						\$ -		

<b>Total Administrative Expenses</b>	\$ 153,535	\$ 63,535	\$ 63,535	\$ 63,535	\$ 67,535	\$ 411,677	\$ -	\$ -
<b>Research Expenses: (add rows as required)</b>								
Research Personnel:						\$ -		
Research Engineer (Core Equip, Lab Mgr)	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 375,000		
Research Engineer (testing/validation, bus dev mgr)	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 375,000		
Research Supplies:						\$ -		
Materials, Chemicals, Supplies, Lab Needs	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000		
Research Equipment:						\$ -		
Ontario Together Fund & Engineering contribution	\$ 1,300,000					\$ 1,300,000		
Travel:						\$ -		
Partner meetings, business development/outreach	\$ 500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 6,500		
Renovations:						\$ -		
ABB Space to accomodate new equipment (F. Eng support per OTF)	\$ 100,000					\$ 100,000		
<b>Total Research Expenses</b>	<b>\$ 1,650,500</b>	<b>\$ 251,500</b>	<b>\$ 251,500</b>	<b>\$ 251,500</b>	<b>\$ 251,500</b>	<b>\$ 2,656,500</b>		
<b>TOTAL EXPENSES</b>	<b>\$ 1,804,035</b>	<b>\$ 315,035</b>	<b>\$ 315,035</b>	<b>\$ 315,035</b>	<b>\$ 319,035</b>	<b>\$ 3,068,177</b>		
<b>CUMULATIVE Surplus/ Deficit</b>	<b>\$ 125,965</b>	<b>\$ 210,929</b>	<b>\$ 295,894</b>	<b>\$ 380,859</b>	<b>\$ 461,824</b>			

#### Funding and Expense Summary

Opening Balance (Year 1)	\$ -
Total Revenue (Total Years)	\$ 3,530,000
<b>Total Available Funding</b>	<b>\$ 3,530,000</b>
Total Expenses (Total Years)	\$ 3,068,177
<b>Net Position</b>	<b>\$ 461,824</b>

DATE: April 15, 2021

TO: University Planning Committee

FROM: Dr. Karen Mossman, Vice-President, Research



RE: **Policy Revision – Guidelines for the Governance and Review of Research Institutes, Centres and Groups**

=====

The Office of the Vice-President Research submits for consideration this revision to the current Policy on “Guidelines for the Governance and Review of Research Institutes, Centres and Groups”.

The Policy was last revised in December 2011. The current policy is proving inadequate in providing guidelines for those wishing to establish new Institutes and Centres, and for those wishing to manage good governance of existing Institutes and Centres. The proposed, revised Policy provides clear guidance for the establishment and governance of, and reporting from Institutes and Centres. The revised policy provides a solid foundation for the positioning of Research Institutes and Centres in the VPR’s Strategic Research Vision.

Specific changes compared to the current policy include:

A new, concise and clear description of the purpose of the policy and the need for Research Organizations;

An updated definition of the three categories of Research Organization, more appropriate for the current research environment;

A new definition section outlining the roles of individuals and committees in the establishment and governance of Research Institutes and Centres;

Significantly updated sections on Establishment, Governance and Reporting obligations, more appropriate for the current research environment;

Updated examples of the graphical description of reporting structures;

The ordering of the sections has been revised to be more logical in nature.

The proposed, revised policy has been developed by the Office of the VPR in collaboration with the University Secretariat, the Associate Deans/Vice Dean Research, and a selection of current Institute and Centre Directors.

In addition to the proposed, revised policy, we enclose the current policy.

KM:ak

Attach.

cc: University Secretariat and Freedom of Information and Protection of Privacy Officer



## Policies, Procedures and Guidelines

Complete Policy Title

**Guidelines for the Governance and Review of  
Research Institutes, Centres and Groups**

Policy Number (if applicable)

Approved by

**Senate /  
Board of Governors**

Date of Most Recent Approval

**December 14, 2011  
December 15, 2011**

Date of Original Approval(s)

**May 17, 2005**

Supersedes/Amends Policy dated

**November 14, 2007**

Responsible Executive

**Vice-President (Research)**

Policy Specific Enquiries

Associate Vice-President (Research)

General Policy Enquiries

[Policy \(University Secretariat\)](#)

**DISCLAIMER:**

*If there is a Discrepancy between this electronic policy and the written copy held  
by the policy owner, the written copy prevails.*

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## **PREAMBLE**

1. Excellence in research depends primarily on the efforts of our faculty members – efforts that may be amplified through, and participation in, a formal research organization. Such organizations allow faculty members to focus on the most pressing and demanding problems facing society, to pool their talents and resources, and to maximize institutional impact and output. They allow us to advance our strategic research objectives; to enhance research collaborations; to facilitate interdisciplinary research; to stimulate partnerships; to expand our research presence on the global stage; to increase our ability to secure funding for major research initiatives; and to strengthen the linkages between research and teaching.
2. Research organizations may be located within a single Department or Faculty, or may cut across such boundaries and have a multi-Faculty or University-wide mandate. They may vary in type and structure depending on their objective and the scope of their activities. Some will require formal governance structures. Those whose activities are closely aligned with the University's strategic objectives, and whose success and failure may have financial and reputational implications for the University must receive approval for establishment from the Senate and the Board of Governors in accordance with the provisions of this Policy. As such, a central feature of this Policy is the description of the process to establish Research Institutes and Centres. This Policy also provides Directors of Research Institutes and Centres with guidance regarding governance and reporting and review obligations to the University. Informal research organizations are also recognized, and these organizations will be referred to as Research Groups. Their formation and governance are flexible and not covered by this policy.
3. Where Research Institutes and Centres house significant research infrastructure, this policy should be viewed in conjunction with McMaster's Guidelines for the Governance and Review of Core Research Platforms.

## **CATEGORIES OF RESEARCH ORGANIZATION**

4. Research organizations fall into three categories: Institutes, Centres and Groups. At the outset of the process to establish a research organization, the prospective membership should consult with the relevant Faculty Dean(s) and/or the Vice-President, Research (VPR) to determine which category is appropriate. As research organizations evolve, the appropriate category may change. In such a case, research organizations should consider instigating a transition to a different category.

5. ***Institutes***

Institutes are closely aligned with the strategic research interests of the University and play a critical role in advancing the University's research objectives. Their designation as an Institute is determined by virtue of one or more criteria which may include: comparative size; breadth of research; national and international impact of their work. In some cases, the membership of the Institute is predominantly based in a single Faculty and the Institute would thus report to the appropriate Faculty Dean. In others, the Institute will have membership spanning two or more Faculties and would report to the VPR or to the Dean of the most appropriate Faculty (in terms of membership or budgetary support). The success of the Institute will have significant implications for the University. Often, the Institute will be responsible for the operation and oversight of central research infrastructure. Some Institutes may be supported by major external funding.

6. ***Centres***

Centres, like Institutes, support the strategic interests of the University, although their focus may be less broad and their operation may have smaller budgetary implications for the University. Research Centres normally report to the Dean of a Faculty, however in some cases a Centre will have membership spanning two or more Faculties. In this latter case, the Centre may report to the VPR or to the Dean of the most appropriate Faculty (in terms of membership or budgetary support). The Centre may be responsible for the operation and oversight of central research infrastructure. Some Centres may be supported by major external funding.

7. ***Groups***

Groups are self-designated research organizations. They can be as small as two faculty members and their respective teams of highly qualified personnel. They may be expected to form, grow, and dissolve as members see fit. Their status, progress, and plans are not reported through the University's governing bodies.

## **ROLES AND RESPONSIBILITIES**

8. **Vice-President (Research):** The Vice-President (Research) (VPR) is the senior academic leader responsible for oversight of McMaster's Research Institutes and Centres. In some cases, the VPR (or designate) may act as Chair of the Governing Board of a Research Centre or Institute.
9. **Dean:** When a Research Centre or Institute reports directly to a Faculty Dean, the Dean shall be responsible for the oversight of the research organization and provide information to the Vice-President (Research) to allow the latter to fulfill

their responsibilities. In this case, the Dean (or designate) is Chair of the Governing Board.

10. **Director:** A Research Institute or Centre is led by a Director who is appointed through the Senate Committee on Appointments, Senate, and Board of Governors for a fixed term, normally 5 years.
11. **Governing Board:** Each Research Institute or Centre is overseen by a Governing Board (GB). Authority for all matters regarding the direction and operation of the Research Institute or Centre rests with the GB.
12. **Advisory Committee:** The Advisory Committee (AC) will provide advice to the Director on scientific and scholarly priorities and strategic guidance for the Research Institute or Centre. The AC is consulted at least annually at the discretion of the Director.
13. **External Review Board:** An External Review Board (ERB) will assess the performance of the Institute and Director and the research which has taken place.
14. **Centre Review Board:** A Centre Review Board (CRB) will assess the performance of the Centre and Director and the research which has taken place.
15. **Committee on Research Institutes, Centres and Groups:** The Committee on Research Institutes, Centres and Groups (CRI) is responsible for reviewing proposals for the establishment of Research Institutes and Centres prior to submission to the University's governing bodies.

## ESTABLISHMENT OF RESEARCH INSTITUTES AND CENTRES

### 16. ***Establishment.***

The lead participants of a proposed Research Institute or Centre should prepare a proposal for submission to the relevant Dean or VPR as appropriate. The proposal is considered by the Committee on Research Institutes, Centres and Groups (CRI), which is constituted of the VPR (Chair), the Provost and Vice-President (Academic), the Dean of Graduate Studies, the University Secretary, and the Faculty Deans relevant to the proposed Institute or Centre. The Proposal should be developed using the McMaster template (made available from the Office of the VPR) and will normally include:

- i. The name, objectives, and proposed activities of the Institute or Centre.

- ii. A rationale for establishing the Institute or Centre.
  - iii. A list of participants and criteria for expanding the membership.
  - iv. A detailed business plan that includes the financial, space and human resource needs of the Institute or Centre. There must be an indication of the funding required to support the Institute or Centre, both initial start-up costs and the costs of on-going operations, and the internal and external sources of that funding.
  - v. A description of the Institute's or Centre's organizational structure, and its relationship (if any) with McMaster University affiliated hospitals or other institutions.
  - vi. An explanation as to why the Institute or Centre is consistent with the University's Strategic Research Plan.
17. If endorsed by the CRI, the proposal will be submitted to the University Planning Committee, who shall consider whether the proposal is consistent with the academic and research priorities of the University and whether the resource requirements and sources of funding have been appropriately considered. If endorsed by UPC, it will be recommended to the Senate and the Board of Governors for approval. The Research Institute or Centre will be formally established upon receiving the approval of the Board of Governors.
18. The University supports the integration of research and education. Research Institutes and Centres may be thus involved in the delivery of academic programs. The approval of such programs will follow the normal University procedures. Specifically, administration of academic programs must be carried out through the appropriate Dean or Associate Vice-President (Academic).

## **GOVERNANCE AND REVIEW OF INSTITUTES AND CENTRES**

19. The University must be informed on the status, progress, and financial viability of Research Institutes and Centres. As such, the University's Research Institutes and Centres must adhere to general practices of good governance with reporting structures that seek expert national and international advice, and which ultimately inform the governing bodies as to their activities and standing within the international or national research community.
20. All Institutes, Centres and Groups are expected to adhere to the University's policies and procedures as established or amended from time to time. Ongoing University support for a Research Institute or Centre is not guaranteed.



21. Each Research Institute or Centre is overseen by a Governing Board (GB). The GB is normally chaired by the appropriate Dean (or designate) or by the VPR (or designate) and is composed of other participating Deans and/or Department Chairs (or designates) whose Faculties and Departments are most affected by the success or failure of the Institute or Centre. It may be appropriate that additional members of the GB are drawn from beyond the VPR, Deans and Chairs. Authority for all matters regarding the direction and operation of the Institute or Centre rests with the GB.
22. A Research Institute or Centre is led by its Director who is normally appointed for a 5-year term. The selection process is managed by the Chair of the GB who, along with board members, will establish a selection committee representing the Institute's or Centre's stakeholders. The selection committee will recommend a candidate to the GB. If the recommendation is accepted, the GB will recommend the candidate to the Senate and the Board of Governors which, upon acceptance, approves the appointment of the Director. The selection process for a Director is separate from and additional to the establishment of a Research Centre or Institute.
23. In some exceptional circumstances, the appointment of a Director may occur as part of the process for hiring a new faculty member. Where the faculty hiring process also plans to appoint the new faculty member as Director of an Institute or Centre, the Chair of the Faculty Appointments Committee will inform the Chair of the Institute's or Centre's GB, at the outset of the hiring process. The Chair of the GB will be afforded the opportunity to comment on the appointment of a Director before the hiring process proceeds. Once a candidate accepts the offer, the Chair of the GB will be informed, and the Dean of the relevant Faculty will ensure that the Director appointment recommendation is provided as part of the appointment package to the Senate and Board of Governors for approval.
24. The Director, with the approval and agreement of the GB, establishes an Advisory Committee (AC) whose purpose it is to provide advice to the Director with regard to scientific and scholarly priorities and strategic guidance for the Institute or Centre. The AC is consulted at least annually at the discretion of the Director. The AC is normally constituted from members of the McMaster community and external members with appropriate expertise relevant to the Research Institute or Centre.
25. ***Research Institutes - Annual Reporting***  
The GB monitors the activity of the Institute following the annual submission of a Director's report to the GB. In the case of Institutes whose GB is Chaired by a Faculty Dean, the Dean will report on the Institute to the VPR for information. The

VPR subsequently provides the University Planning Committee (UPC), Senate and Board of Governors with an annual report on the status of the Institute for information, as part of a summary document reporting on all Research Institutes.

26. Where Research Institutes house significant research infrastructure, and are deemed Core Platforms, the Director's report will be aligned with the reporting needs outlined in McMaster's Guidelines for the Governance and Review of Core Research Platforms.

**27. *Research Institutes – Performance Review***

The GB, in consultation with the Director, the AC, and members of the Institute, is responsible for periodically constituting an External Review Board (ERB). An ERB will review each Research Institute at least every five years and normally coincident with the final year of the Director's term. An external review may be called prior to a five-year lapse since Institute establishment or prior review, at the request of the Institute's GB.

The composition of the ERB will be determined by the GB and should take into account the aspirations of the Institute and the availability of funds to support the review. The ERB would normally comprise three high-caliber scholars with an international perspective, who must be at arms' length from the Institute. At least one of the ERB members should be external to the McMaster community. A member from the public or private sector could be considered as one of the three ERB members where such representation would be helpful in determining the value of the Institute's research. The ERB will assess the performance of the Institute Director and the research which has taken place. The ERB may use several metrics to determine performance including: the number and quality of publications; knowledge transfer to external partners; societal impact; and advancement of the University's strategic priorities. These should be compared to (a) similar metrics for the Institute prior to a previous review or, if this is the first review, with the expectations in the Institute establishment proposal; and (b) with the performance of Institutes of similar size in the same field of research. The ERB report will include recommendation for the renewal of the Director, and whether Institute performance is consistent with the status of an Institute at McMaster University. The report will be submitted in confidence to the Chair of the GB and the VPR; and the Chair of the GB would normally share the ERB's report and its recommendations with the GB and either the current Director, or the successor to the current Director. The Director will prepare a response to the report to be shared with the GB and the VPR. Both the report and response will be provided to UPC, Senate and the Board of Governors to review and receive.

**28. *Research Centres - Annual Reporting***

The GB monitors the activity of the Centre following the annual submission of a Director's report to the GB. In the case of Centres whose GB is Chaired by a Faculty Dean, the Dean will report on the Centre to the VPR for information. The VPR subsequently provides UPC, Senate and Board of Governors with an annual status report for information, as part of a summary document reporting on all Research Centres.

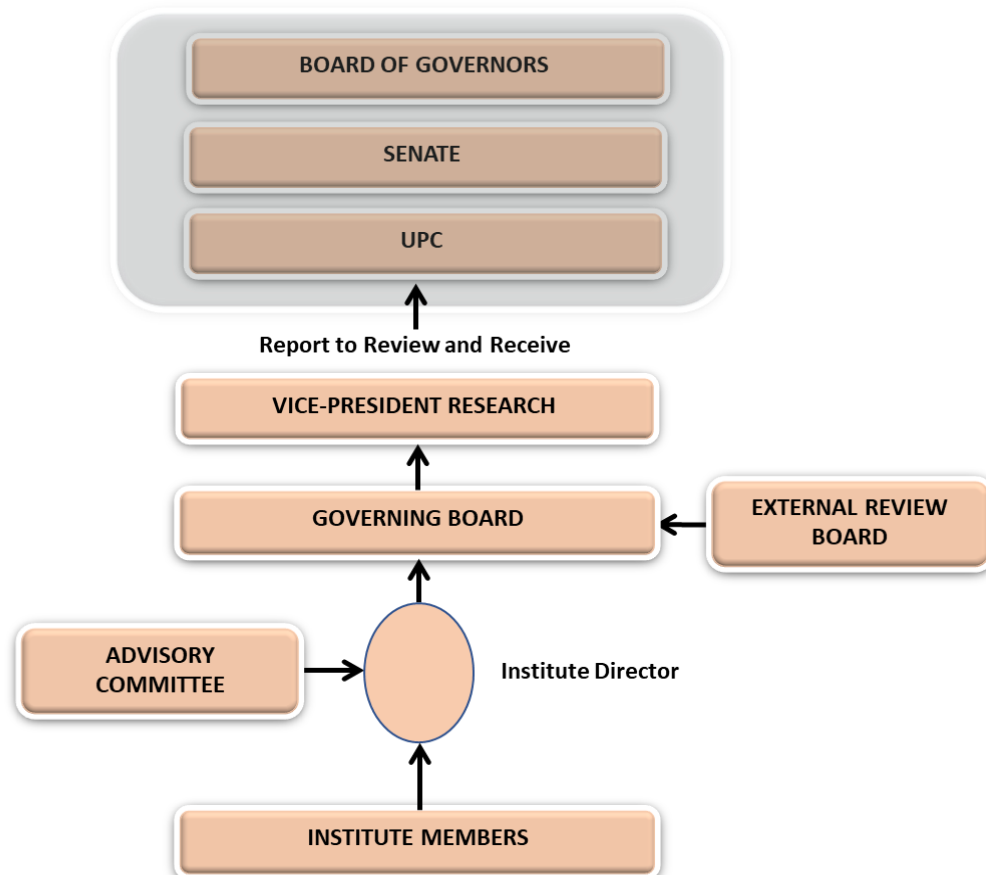
29. Where Research Centres house significant research infrastructure, and are deemed Core Research Platforms, the Director's report will be aligned with the reporting needs outlined in McMaster's Guidelines for the Governance and Review of Core Research Platforms.

**30. *Research Centres – Performance Review***

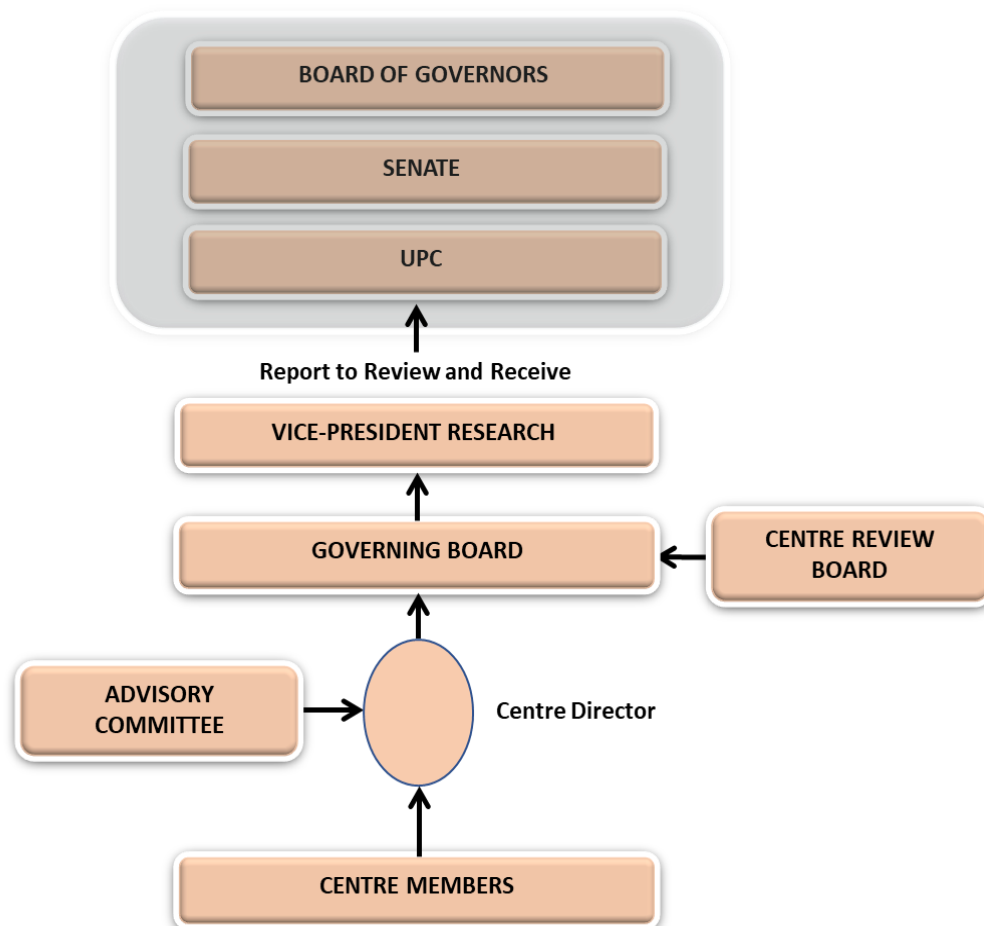
Each Centre will be reviewed at least every five years by a Centre Review Board (CRB). The composition of the CRB will be determined by the GB. The CRB would normally comprise three high-caliber scholars who may be internal or external to the McMaster community and who must be at arms' length from the Centre. The mandate of the CRB is similar to that described for the ERB for Institutes. The CRB report will be submitted in confidence to the Chair of the GB and the VPR and the Chair of the GB would normally share the CRB's report and its recommendations with the GB and either the current Director, or the successor to the current Director. The Director will prepare a response to the report to be shared with the GB and the VPR. Both the report and response will be provided to UPC, Senate and the Board of Governors to review and receive.

**31. *Flexibility for Governance and Review of Institutes and Centres in Exceptional Circumstances***

It is possible that the governance structure, reporting and review of Research Institutes and Centres may need to vary from those described above. For example, the Research Institute or Centre could also be required to report to an external funding body, and that body may have specific governance and reporting criteria. In such a case, the governance structure, reporting and review of the Research Institute or Centre must conform as closely as possible to that outlined above, while fulfilling the mandatory requirements of the external body.



**Example structure for a Research Institute. In this case, the Chair of the Governing Board is a Faculty Dean. This structure is provided as one possible example and other structures which conform with this policy are not excluded.**



**Example structure for a Research Centre. In this case, the Chair of the Governing Board is a Faculty Dean. This structure is provided as one possible example and other structures which conform with this policy are not excluded.**

## **TERMINATION AND TRANSITION OF INSTITUTES AND CENTRES**

### **32. *Transition or Termination of a Research Institute or Centre***

A review of an Institute or Centre may conclude that the performance is inconsistent with University expectations. In some instances, following a negative review, the membership of an Institute will re-form as a Centre or a Group; or in the case of a Centre the membership will re-form as a Group. It is also possible that, following consultation with the GB, the appropriate Faculty Dean or VPR will dismiss the incumbent Director and instigate a search for a new Director who can address the deficiencies of the negative review and better serve the interests of the Research Institute or Centre and the University. In other instances, a CRB may recommend that a Centre become an Institute, in which case a formal application should be made to the VPR and CRI for Institute status.

The objective of transition is to provide the researchers with sufficient flexibility to optimize their productivity and impact. It is thus possible that a Director, usually after consultation with the AC and membership, may seek transition at any time within the lifetime of the Institute or Centre (whether a review has been received or not). This process is instigated through a request to the GB.

The recommendation as to whether to terminate or transition a Research Institute or Centre, is made by the Institute's or Centre's GB. As establishment of an Institute or Centre is approved by UPC, Senate and the Board of Governors, approval for terminating or transitioning a Centre or Institute is also required from UPC, Senate and the Board of Governors.

## **RELATED POLICIES**

Guidelines for the Governance and Review of Core Research Platforms

Financial Procedure for Research Grants

Indirect Costs Associated with Research

Internally Sponsored Research Accounts

Joint Intellectual Property Policy

Operating and Ancillary Budgets Policy

Guidelines for the Governance and Review  
of Research Institutes, Centres and Groups

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Research Accounts Policy

Research Ethics Policy

Research Integrity Policy

Research Residuals Policy

Complete Policy Title:  
**Guidelines for the Governance  
and Review of Research  
Institutes, Centres and Groups**

Policy Number (if applicable):

Approved by:  
**Senate  
Board of Governors**

Date of Most Recent Approval:  
**December 14, 2011  
December 15, 2011**

Date of Original Approval(s):  
**May 17, 2005**

Supersedes/Amends Policy dated:  
**November 14, 2007**  
*(Guidelines for the Establishment of Research  
Groups, Centres and Institutes)*

Responsible Executive:  
**Vice-President (Research and  
International Affairs)**

Enquiries:  
[University Secretariat](#)

***DISCLAIMER:** If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails*

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## **1. Preamble**

The pursuit and encouragement of excellent scholarship and research at McMaster University is dependent principally upon the efforts of its faculty members. Faculty members may form organizations to address research problems that are of mutual interest to them. The development of such research organizations can serve a number of strategic objectives, for example creating a critical mass of researchers and increasing their potential impact, enhancing research collaborations, facilitating interdisciplinary research, increasing the visibility of research at McMaster University nationally and internationally, increasing McMaster University's ability to secure funding for major research infrastructure, and facilitating the linkages between research and education. These research organizations may be located within a Department or Faculty or they may cut across such boundaries and have a University-wide mandate. With the evolution of the modern research university, such organizations are increasingly a requirement to address the most pressing and demanding problems facing society and therefore facing the University. This policy is designed to encourage substantive collaborations and to facilitate the benefits that researchers may find in establishing research organizations.

Research organizations can vary in type and structure depending on the objectives they are designed to accomplish and the scope of their activities. Some will require more formal governance structures than others. The ones whose activities are most closely aligned with the University's strategic objectives, and those whose success and failures



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can have large financial implications for the University must receive approval from the Senate and the Board of Governors in accordance with the provisions of this Policy. Smaller research organizations may also form, and their needs and aspirations may be better met with a more flexible and nimble governance structure. In such cases, approval and financial implications would be more appropriately dealt with at the Faculty level.

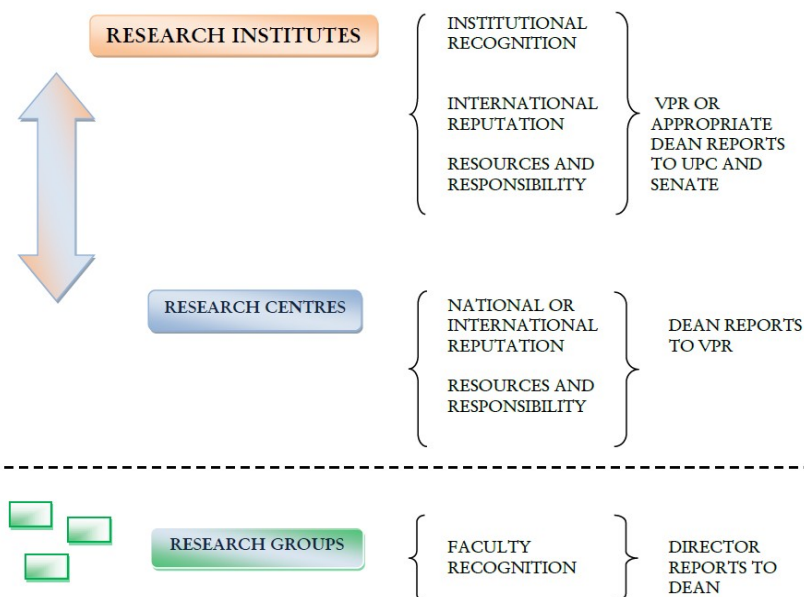
A central feature of this Policy is the establishment of 3 categories for research organizations, which are referred to as Institutes, Centres, and Groups. These categories acknowledge both the spectrum of complexity that research organizations can achieve as well as the increased levels of governance required for the most complicated types of organizations. This Policy is also designed to provide guidance to faculty who are interested in establishing a research organization as well as to Directors of already established research organizations regarding their governance, reporting and review obligations to the University. The relative hierarchy of the research organizations and a summary of some of their characteristics and reporting are illustrated below.

## **2. Classes of Research Organizations:**

Different research organizations may be formed to address certain types of research problems; to plan for, manage and optimally exploit certain common research infrastructure; and to otherwise advance the interests of a group of researchers. These will be organized into three groupings, hereafter referred to as Institutes, Centres, and Groups. It may be that at present there are research organizations which fit into one of these categories, but which do not carry with them the appropriate name (eg. a research organization which is, and has been, referred to as an Institute, but which is structured and administered as a Centre as described below). Such organizations should consider the relative costs and benefits of changing their names to Institute, Centre and Group, as will be employed by the University, at the next occasion of their review. The onus is on the research organization to make a compelling case that a significant benefit will be lost by changing their names to one consistent with McMaster's new structure for research organizations.

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### Hierarchy of Research Institutes, Centres and Groups



#### a. Institutes

Institutes are the research organizations most closely aligned with the strategic interests of the university, by virtue of one or more of several criteria: their size, breadth, or national and international impact on their focus area of research. Institutes normally report to the VP (Research and International Affairs) (VPR). The VPR, in consultation with the Dean or Dean(s) most directly involved in the Institute, then reports annually on the status, progress and plans of the Institute to the University Planning Committee (UPC) and to Senate. In some cases, the Institutes would be expected to have membership spanning two or more faculties, and would be supported by major external funding. In others, the membership of the Institute would be mainly based in a single Faculty in which case the Institute would report to the appropriate Faculty Dean, and he or she would consult with appropriate Departmental chairs. The success of the Institute may have significant financial and other implications for the University and they would often be responsible for the operation and oversight of central research infrastructure.

#### b. Centres

Centres are similar to Institutes. Their mission for research and scholarship with a national and international impact in their areas of interest is the same, but their interests are less closely aligned with the university's strategic interests and they may have smaller budgetary implications for the university. Although their interests will often be largely internal to a particular Faculty, in some cases their membership will cross two or more

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Faculties. As such they would normally report to the appropriate Dean, to whom any requests for funding should be made. The Faculty Dean then reports for information on their status, progress, and plans to the VPR. There may also be instances where a Centre would report directly to the VPR, by virtue of having membership across more than one Faculty. The status, progress, and plans of Centres is not reported to Senate.

#### c. Groups

Groups are smaller research organizations, which can be as small as two faculty members and their respective teams of highly qualified personnel. They may be expected to form, grow, and dissolve on a relatively short time scale, although, in some cases, they can also be stable for relatively long time periods. They may or may not receive financial support from the University, and would normally report to the appropriate Faculty Dean, for groups whose research lies largely within the domain of a single Faculty, or to the VPR for groups whose research interests span the domains of two or more Faculties. Their status, progress, and plans are not reported to Senate.

### 3. Governance and Review of Institutes and Centres.

The University must be informed on the status, progress, and financial viability of the research organizations which carry out its strategic interests. As such the University's Institutes and Centres must adhere to general practices of good governance with reporting structures that seek expert national and international advice and which ultimately informs the VPR and the Faculty Dean as to their activities and standing within the international or national research community. In the case of Institutes, the VPR then reports on the status, progress, and plans of Institutes to the UPC and to Senate.

Furthermore, change and renewal are critical if universities are to meet the challenges of modern research. Research organizations wax and wane as a result of their performance, the state of their research fields and because of the fluidity of the academic community at large. Thus, none of the organizations described in this document can be considered permanent fixtures; survival is dependent on performance, which must therefore be monitored on a regular basis. What follows is a discussion of the governance and reporting structures for the research organizations and a statement of principles concerning the review process.

#### a. Governance of Institutes:

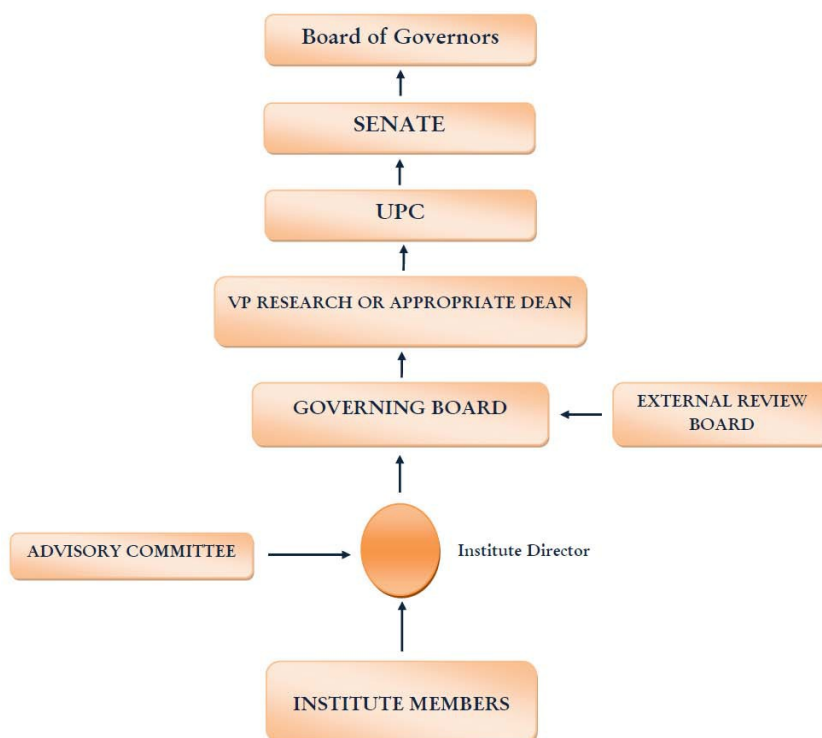
The governance structure of Institutes is illustrated below. An Institute is led by its Director, who is normally appointed for a 5 year term. The Director establishes an Advisory Committee (AC) whose purpose is to provide advice to the Director with regard to scientific or scholarly priorities and direction for the Institute. The AC is chosen by the Director, and is consulted at least every two years, or more frequently at the discretion of the Director.



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The Institute Director reports to the Institute's Governing Board (GB) on an annual basis. The GB comprises the VPR (or designate) along with the Deans (or designate) from the Faculties which have a substantive investment in the success of the Institute. For Institutes which reside principally within a single Faculty, the GB is comprised of the Dean of the appropriate Faculty (or designate) and the Chairs of the Departments which have a substantive investment in the success of the Institute. The GB, in consultation with the Director, the AC, and members of the Institute, is responsible for constituting an External Review Board (ERB) at least every 5 years, and normally coincident with the final year of the Director's term.

#### Reporting Lines for University Institutes



The GB reports annually to the VPR or appropriate Dean for Institutes which reside principally within a single Faculty, and the final authority for all matters regarding the direction and operation of the Institute rests with the VPR, or appropriate Dean. In the case of Institutes which reside principally within a single Faculty, the appropriate Dean will report on the Institute to the VPR for information only. The VPR or appropriate Dean then reports annually on the status, progress, and future plans of the Institute to the UPC and to Senate.

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**b. Review of Institutes:**

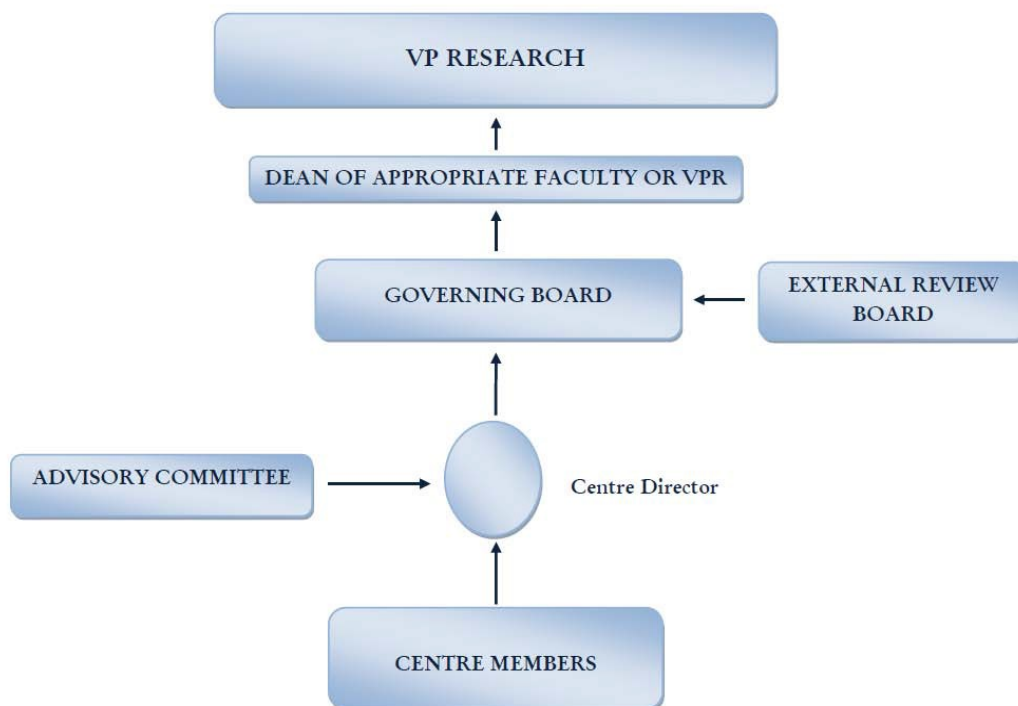
An External Review Board (ERB) will review each Institute every 5 years or sooner at the request of the Institute's GB. The composition of the ERB will be determined by the GB and should take into account the aspirations of the institute and the availability of funds to support the review. The ERB would normally comprise 3 high caliber scholars with an international perspective, who must be arms length from the Institute. The ERB will assess the performance of the Institute's Director and its scientific program. The ERB will be furnished with documents describing the University's policy on Research Institutes and will be asked whether performance is compatible with expectations described in the policy. The ERB is expected to use accepted measures of performance such as publication number and impact to assess the Institute's contributions in comparison with those of (a) the Institute during the preceding 5 years and (b) with the performance of institutes of similar size in the same field of research. The recommendations of the ERB will include the renewal of the Director, and whether the Institute's performance is consistent with that of an Institute at McMaster University. Their report will be submitted in confidence to the VPR or appropriate Dean. Normally, the VPR would share the ERB's report or major recommendations from the ERB's report with either the current Director, or the successor to the current Director, so that the leadership of the Institute benefits from the perspective of the ERB.

**c. Governance of Centres:**

The governance structure of Centres is illustrated below. It differs from an Institute in the final authority for all matters regarding the direction and operation of the Centre rests with the Dean of the Faculty appropriate to the Centre, or with the VPR for Centres for whom a substantial fraction of their membership is drawn from more than one Faculty. The Dean (or VPR) or designate does not report to Senate, and instead reports to the VPR for information only. In all other respects its governance structure is that of an Institute which resides principally within a single Faculty. The Centre's GB is normally chaired by the appropriate Dean (or VPR) or designate, and is composed of the Chairs (or designates) of the Departments most affected by the success or failure of the Centre.

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### Reporting Lines for University Centres



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**d. Reviews of Centres:**

Responsibility for monitoring the status, progress and plans for Centres resides with the Dean of the Faculty within which the members (or the majority of members) reside or with the VPR in cases where the Centre substantively spans more than one Faculty. Each Centre will be reviewed at least every 5 years. The composition of the ERB will be determined by the Dean or designate, or VPR or designate, as appropriate, and may consist of external or internal reviewers. The mandate of the review board is similar to that described for the ERB for institutes. A Governing Board chaired by the Dean or designate, or VPR or designate, and composed of the Departmental Chairs (or delegates) of the Centre members should monitor the activity of Centres every year.

**4. Establishment, Termination and Transition of Research Institutes and Centres.**

**a. Establishment:**

The lead participants in either a proposed Institute or Centre should prepare a proposal for submission to the relevant Dean or VPR, as appropriate. The proposal is then considered by the Committee on Research Institutes (CRI), which is constituted by the VPR (as Chair), the Provost (VP Academic), the Dean of Graduate Studies, the University Secretary, and the Faculty Deans relevant to the specific Institute or Centre. The proposal will normally include:

- 1- The name, objectives, and proposed activities of the Institute or Centre.
- 2- A rationale for establishing the Institute or Centre.
- 3- A list of participants and criteria for expanding the membership.
- 4- A detailed business plan that includes the financial, space and human resource needs of the Institute or Centre. There must be an indication of the funding required to support the Institute or Centre, both initial start-up costs and the costs of on-going operations, and the internal and external sources of that funding.
- 5- A description of the Institute's or Centre's organizational structure, and its relationship (if any) with our affiliated hospitals or other institutions.

In the case of a proposed Centre, the appropriate Dean or VPR, in consultation with the CRI, considers the proposal and makes a decision as to whether or not to support the new Centre.

In the case of a proposed Institute, the University Planning Committee (UPC) shall consider whether the proposal is consistent with the academic priorities of the University and whether the resource requirements and sources of funding have been appropriately considered. If the proposal is endorsed by the UPC, it will recommend it to the Senate and the Board of Governors for approval. The proposed Institute will be formally established upon receiving the approval of the Board of Governors.

With the University's emphasis on linking research and education, Institutes may be involved in the delivery of academic programs. While the approval of research and



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academic programs may be linked, the approval of the academic component of such programs will follow the normal University procedures for approving academic programs. Administration of academic programs will be carried out through the appropriate Dean or Associate Vice-President (Academic).

An Institute will have a Director, appointed by the Senate and the Board of Governors, on the recommendation of a selection committee representing the stakeholders and chaired by the University officer to whom the Director of the Institute will report.

b. Termination:

An external review may conclude that the performance of an Institute or Centre is inconsistent with institutional expectations. The decision as to whether to disband the Institute or to transition it to a Centre is made by the Board of Governors, on the recommendation of the VPR or appropriate Dean, according to the Reporting Lines for University Institutes outlined on page 5. The decision as to whether to disband a Centre, or to transition it to a Group, shall rest with the Dean or VPR, on the advice of its Governing Board, and the recommendations of the relevant ERB.

c. Transitions:

- i) In some instances, following a negative review, the membership of an Institute will regroup as a Centre or a Group. It is also possible the VPR or Dean will dismiss the incumbent Director and instigate a search for a new Director who can address the deficiencies of the negative review and better serve the interests of the Institute and University. In other instances, an ERB may recommend that a Centre become an Institute, in which case a formal application should be made to the VPR and CRI for Institute status. It is also understood that Centres may wish to remain as Centres following an excellent ERB review.

The objective is to provide the institution's researchers with sufficient flexibility to optimize their productivity and impact.

- ii) Institutes and Centres which currently exist may have different governance procedures and reporting structures than those described in this document. In most cases these organizations will adopt the procedures and structures described here in a timely manner, and which would, at the latest, coincide with the beginning of the next term of the Institute or Centre's Director. That is, all Institutes and Centres would be expected to have transitioned to the procedures and structures outlined in this policy by no later than July, 2016. The VPR may choose to waive this requirement for exceptional cases.

## 5. Financial Matters

All Institutes, Centres and Groups are expected to adhere to the University's financial policies and procedures as established or amended from time to time.

