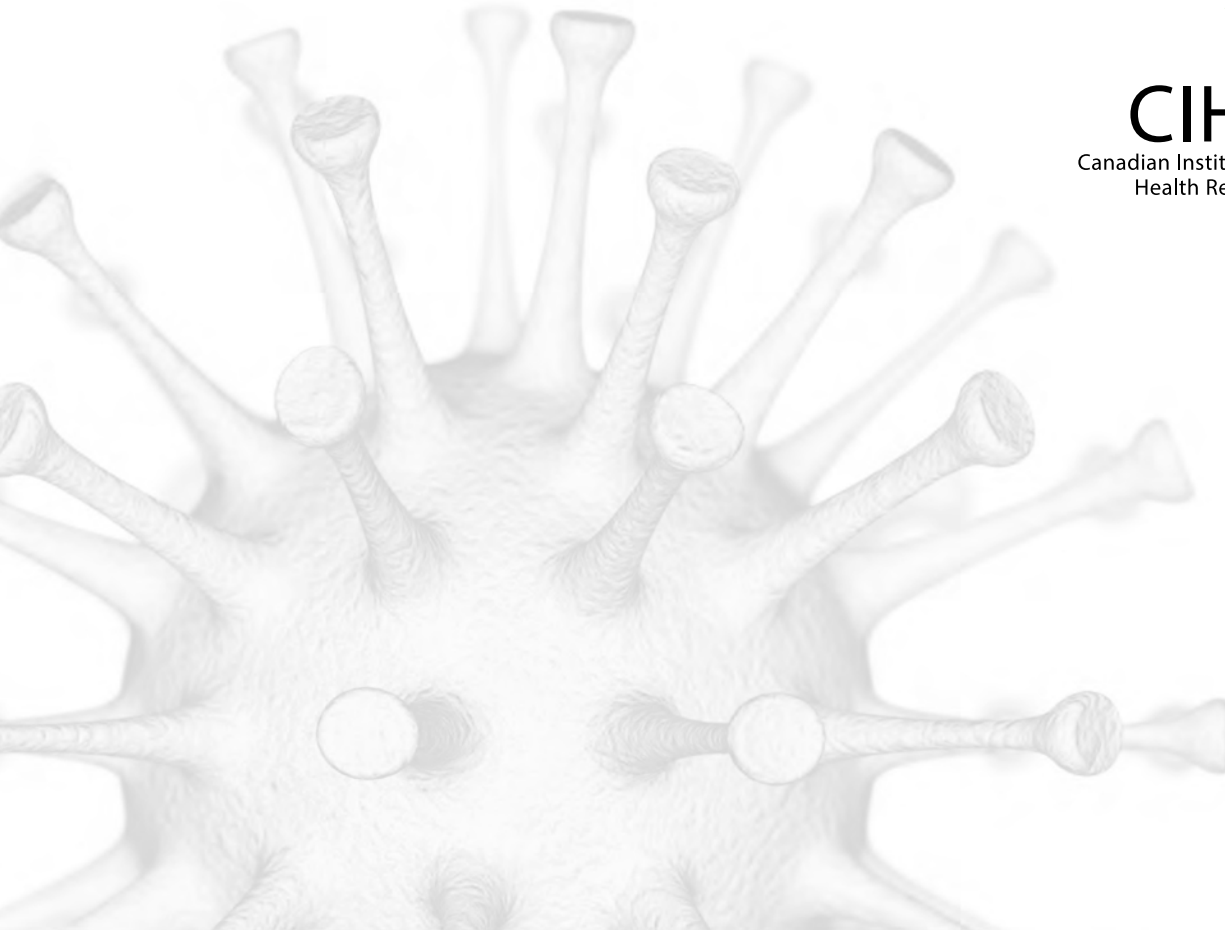




CIHR IRSC
Canadian Institutes of Health Research Instituts de recherche en santé du Canada



CIHR INSTITUTE OF INFECTION AND IMMUNITY



Strategic Plan 2019 - 2020



Canadian Institutes of Health Research Instituts de recherche en santé du Canada



At the Canadian Institutes of Health Research (CIHR), we know that research has the power to change lives. As Canada's health research investment agency, we collaborate with partners and researchers to support the discoveries and innovations that improve our health and strengthen our health care system.

CIHR Institute of Infection and Immunity (CIHR-III)

The CIHR Institute of Infection and Immunity (CIHR-III) invests in research on infectious diseases and the body's immune system. Through this research, III addresses a wide range of health concerns related to infection and immunity, including disease prevention and treatment, as well as public health promotion. www.cihr-irsc.gc.ca/e/13533.html

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Also available on the Web in PDF and HTML formats
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Cat. MR2-24/2019E-PDF
ISBN 978-0-660-31985-8



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MESSAGE FROM THE SCIENTIFIC DIRECTOR

I am very pleased to announce the launch of the CIHR-Institute of Infection and Immunity (III)'s Strategic Plan: 2019-2020.

This will be a 2-year extension of the 2013-2018 Strategic Plan, while III is in the process of developing the long term plan and aligning it with CIHR's overall Strategic Plan.



In the context of the Institute's transition to a new leadership, the ending of the period covered by the previous Strategic Plan and the overall positive external review for the Institute in 2018, after some consideration, we decided to extend the previous CIHR-III Strategic Plan: 2013-2018 and communicate our short-term priorities for 2019-2020, in order to be transparent with our research community. In doing so, we re-affirm our commitment to maximizing the impact of our research investment in the upcoming years and advancing health innovation in Canada in the area of infection and immunity. I invite you to read more about our short-term strategic priorities in the full publication below.

In parallel with the launch of the CIHR-III Strategic Plan: 2019-2020, the Institute starts a year-long process to deliver a 5-year Strategic Plan (2021-2025). I invite you to participate in the development of the infection and immunity research agenda. Join the conversation by visiting our website for more information on how you can engage in our strategic planning process.

Finally, as I enter into my second year as the Scientific Director of CIHR-III, I want to thank all of you for the tremendous support that I have received thus far. I would also like to sincerely thank everyone who has contributed to the development of the CIHR-III Strategic Plan: 2019-2020 and to the long-term strategic planning process – our Institute Advisory Board members for their valuable guidance, contributions and approval and the CIHR-III staff for their hard work and dedication.

Best wishes,

A handwritten signature in blue ink that reads "Charu Kaushic" with a horizontal line underneath.





Charu Kaushic, PhD
Scientific Director, CIHR-III

I. EXECUTIVE SUMMARY

STRATEGIC OBJECTIVE 1 Strengthen and coordinate infection and immunity research

Priority 1



Prepare and respond to current and emerging threats to health

-  Antimicrobial Resistance
-  Tuberculosis
-  Global health
-  Vaccines



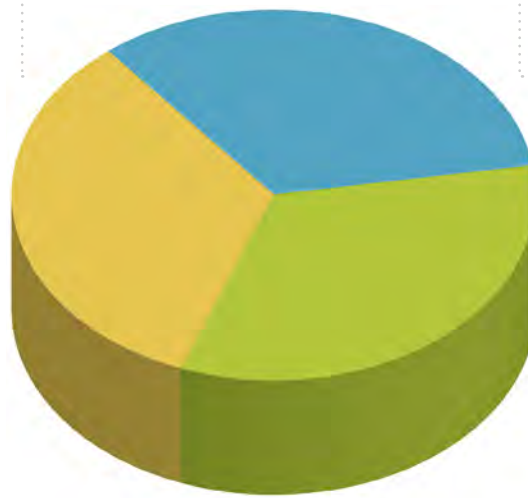
Priority 2

Integrate infection and immunity knowledge in the control and prevention of chronic diseases

-  Inflammation
-  Diabetes

STRATEGIC OBJECTIVE 2 Ensure the application and impact of research

Priority 1
Support through Life-span
(Capacity Development)



Priority 3
Collaborations and Partnerships

Priority 2
Communications Strategy



II. BACKGROUND

CIHR and III

The Canadian Institutes of Health Research (CIHR) objective, under the *Canadian Institutes of Health Research Act*, is “to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system”. Accountable to the Parliament through the Minister of Health, CIHR is part of the Health Portfolio which supports the Minister of Health in improving the health of Canadians and our healthcare system.

Composed of thirteen Institutes, CIHR provides leadership and support to health researchers and trainees across Canada. CIHR’s vision is to position Canada as a world leader in the creation and use of health knowledge that benefits Canadians and the global community.

As an integral part of CIHR, the Institutes play a key role in the achievement of CIHR’s objective. As per the CIHR Act, the Institutes “shall support individuals, groups and communities of researchers for the purpose of implementing, within its mandate, the objective of the CIHR”. Therefore, CIHR’s Institutes share responsibility for achieving the objectives of CIHR through strategic plans that are aligned with the overarching directions, mandate and vision of CIHR.

In 2014-15, CIHR published its third strategic plan, *Health Research Roadmap II: Capturing innovation to produce better health and health care for Canadians* (Roadmap II). As the current strategic planning cycle comes to an end in 2018-19, CIHR is entering a period of transformation and a new strategic planning process, aiming at publishing its new strategic plan in early Summer 2020.

The mandate of the Institute of Infection and Immunity (III) is to support research and help build research capacity in the areas of infectious disease and the body’s immune system. Since its inception, the Institute has taken significant steps to foster research excellence and advance health innovation in Canada in the area of infection and immunity. III’s mandate transcends disciplines and encompasses all four CIHR health research themes (biomedical; clinical; health services; and social, cultural, environmental and population health).

In July 2018, a new Scientific Director was appointed; Dr. Charu Kaushic from McMaster University became the third III Scientific Director. Along with the terms of the two previous Scientific Directors, the Institute has gone through three strategic plans, the last plan covering the 2013-2018 period.

Institute External Review

As per the CIHR Act, the III was evaluated externally in 2018, as part of the rolling review of the mandate and performance of the thirteen CIHR Institutes. The review assessed the relevance and performance of III in order to inform the future direction and focus of the Institute's mandate.

Covering the area of infection and immunity, III's mandate is broad and encompassing multiple diseases, including diseases relevant to other 3 Institutes. Therefore, multidisciplinary research, partnerships and collaborations become key elements to ensure the success of the Institute's Strategic Initiatives. While leading several Government of Canada's directed priorities (HIV, antimicrobial resistance, Hepatitis C, etc.), the Institute has invested in multiple strategic initiatives in both realms of the III mandate (infection and immunity).

Overall, the external review found that the Institute has an important mandate that is needed in the context of improving Canadians' health. Recommendations from the panel included that the Institute:

1. continue with its current mandate.
2. continue to lead on emerging threats, antimicrobial resistance, and HIV/AIDS initiatives.
3. target communication and outreach activities to mid-career investigators to raise awareness of III's role and funding mechanisms, and facilitate discussion around creating innovative funding structures.
4. put efforts in priority areas of research including microbiome, antimicrobial resistance, vaccine, sex and gender, aging (chronic inflammation and the role of the microbiome), immune-cardiology, health inequities, immune cell engineering, and stem cell transplants.

Strategic Focus

The Institute is going into a planning and consultation phase over the next year to be able to construct a 5-year Strategic Plan. III's plan will also need to be aligned with CIHR's strategic plan, which is planned for release in mid-2020. Given the timeline needed for community and stakeholders' consultations and the need to align the plan to CIHR's strategic plan, it is expected that III will be able to release its 5-year plan in Fall 2020 to cover a period of 2021-2025. Since the previous strategic plan covered up to December 2018 and given the overall validation of the III mandate by the external review, the objective of this plan is to extend the 2013-2018 strategic plan to 2020 and communicate to the III community the underlying short-term priorities for the Institute (2019-2020).



III. STRATEGY

Vision

The Institute seeks to become the Canadian focal point of reference to harness and optimize the research efforts in infectious and immune-related diseases. It also seeks to become the national and international reference in the utilization and implementation of those research results for the improvement of the health care system.

Mission

The Institute's mission is to provide national leadership, priorities and programs to promote novel infection and immunity research.

Values

We strive to promote health and reduce the global burden of infection and immune-based diseases through an approach based on CIHR's overarching core values:

1. excellence;
2. scientific integrity and ethics;
3. collaboration;
4. innovation;
5. public interest.

Strategic Objectives

The 2013-2018 III Strategic Plan has two overall objectives aiming at enhancing the excellence of the Institute:

1. Strengthening and coordinating infection and immunity research; and
2. Ensuring the application and impact of research.

Underlying the strengthening and coordination of research are two overarching research priorities: 1) preparing and responding to current and emerging threats to health (emerging infections, antimicrobial resistance, vaccines, diagnostics and environmental threats); and 2) integration of infection and immunity knowledge in the control and prevention of chronic diseases (inflammation including microbiome and transplantation research, human immunology, and chronic viral diseases such as HIV and hepatitis C). Those two priorities encompass the research areas in which III has invested in the recent years.

The second objective, to ensure the application and impact of research, is also composed of two priorities: 1) promoting innovation, and; 2) ensuring the impact of research outcomes. To achieve these priorities, the Institute continuously supports networking and collaborative activities at national and international levels, thus assisting the infection and immunity research community in knowledge translation activities, engaging end-user communities, and monitoring and evaluating outcomes for Institute-led initiatives.

Strategic Priorities – 2019-2020

Preparing and responding to current and emerging threats to health

The emergence and re-emergence of preventable infectious diseases is becoming a challenge worldwide. In the past, the Institute has reacted to existing and emerging threats (Zika, Ebola, antimicrobial resistance). In order to prepare and respond to current and emerging threats globally, the Institute will continue to invest efforts on the Global Health arena and will continue playing a leadership role in global pandemic preparedness through its participation in GloPID-R (an international forum of funders for emergency preparedness). Building on previous partnerships with other CIHR Institutes, III will continue to actively participate and lead strategic initiatives in Global Health. As CIHR is developing its Global Health Research Strategy, III will remain actively involved and intends to align new priorities with this new strategy.

Keeping in mind the public health issues and the potential partnerships opportunities, the Institute will ensure advancement of knowledge in tuberculosis (TB) research and will align with the World Health Organization (WHO) calling for actions through the End TB Strategy to tackle the global epidemic of tuberculosis. In the national context, although Canada has one of the lowest rates of TB, we are still featuring a national rate of 4.9 cases per 100,000 population. Indigenous Peoples and foreign-born individuals from high TB incidence countries are disproportionately affected by persistently higher rates of infection. In 2018, the Government of Canada announced its promise to eradicate TB in Canada's North by 2030, with an interim goal of reducing active TB in the North by half within the (then) next seven years. III will be playing a leadership role in collaboration with the Institute of Indigenous Peoples' Health (IIPH) in shaping CIHR's strategy for TB research priorities to address the 2030 goal.

With the re-emergence of preventable infectious diseases seen in the recent outbreaks of measles in Canada and around the world, vaccines and vaccination have once again become key issues in the battle against those threats. The Institute continues to play a proactive role in a federal action plan on vaccines and leads the Canadian representation on the international group for universal influenza vaccine (Unifluvac). Vaccines and novel adjuvants as well as vaccine evaluation were identified as a gap for Canadian investments by the Institute external review panel. Moreover, taking into consideration that WHO has identified vaccine hesitancy and antimicrobial resistance as two of the ten threats to global health in 2019, the Institute will tackle the emergence of superbugs and the resurgence of a number of communicable diseases through investments in vaccines.

Furthermore, the Government of Canada will be releasing the Pan-Canadian Action Plan on antimicrobial resistance in Fall 2019 which is comprised of four pillars (Stewardship, Surveillance, Prevention and Infection Control, and Research and Innovation). The Institute has collaborated with federal partners on building the Research and Innovation pillar and is looking forward to leading its implementation.

Integration of infection and immunity knowledge in the control and prevention of chronic diseases

The control and prevention of chronic diseases relevant to our mandate remains a priority for III. Therefore, we will continue our investments in areas such as microbiome, human immunology, and transplantation. Moreover, the Institute will continue to provide leadership on Government of Canada's research priorities falling under this priority (such as HIV/AIDS which has recently been integrated in the Pan-Canadian Action Plan on STBBIs and Hepatitis C).

The Institute recognizes the role that inflammation plays in chronic diseases. The Inflammation in Chronic Disease Initiative (ICDI), developed in collaboration with other Institutes, established new interdisciplinary teams in the field of chronic inflammation and aimed at understanding commonalities and differences between these chronic diseases in the role that inflammation plays. In the short-term, significant efforts will be invested into developing a follow-up initiative on inflammation and related diseases in order to further develop prevention and treatment approaches (Health Challenges in Chronic Inflammation Phase 2: A Focus on Translation and Improved Quality of Life (HCCI2)).

The burden of chronic diseases like diabetes increases yearly and affects various populations differently. With the hundredth anniversary of insulin discovery coming in 2021, there is an opportunity to reflect and consider strategic investments to push forward the knowledge on diabetes prevention and treatment. The III will work in collaboration with the Institute of Nutrition, Metabolism and Diabetes and other Institutes to synergize efforts and build new initiatives in order to tackle chronic diseases such as diabetes.

Promote innovation and facilitate impact of research

As part of its mandate, the Institute concentrates its efforts on its two strategic objectives and the underlying research priorities for which the Institute will build follow-up initiatives as well as new initiatives. To facilitate the application of research findings, the Institute will continue to foster translational activities. Moreover, continuous work will be undertaken to ensure accurate follow-up and measurement of strategic initiatives. In collaboration with CIHR's branch responsible for evaluation and measurement, III will continue to monitor and evaluate the outcomes of previous III strategic investments and activities.

Along with the work aligned with the research priorities, III will ensure to integrate transversal priorities in order to fulfill its mission and provide national leadership, priorities and programs to promote novel infection and immunity research. A number of cross-cutting priorities are part of the Institute's short-term strategic directions. Those transversal priorities are:

- support through life span (capacity development);
- updated communication strategy; and
- collaborations and partnerships.

Support through Life-Span (Capacity Development)

In order to promote novel infection and immunity research, the Institute believes in investing in the next generation of researchers and in the support through their life span as researchers. The III will embed training in developing initiatives and will continue to invest in early-career researchers via a variety of targeted programs. Furthermore, the Institute will pursue its New Investigator Forum program aimed at providing early-career researchers an opportunity to network and learn about building a successful career in infection and immunity research. Mid-career researchers will be targeted for outreach in order to increase awareness of III's role and funding mechanisms in that community and to facilitate discussion around the creation of innovative funding structures.

Communication Strategy

The Institute will modernize its communication with the community and is developing an updated communication strategy aiming to raise awareness about III and its activities; and highlight III's role and methods of support. A number of deliverables have already been deployed: III's Scientific Director is present on social media, a bi-weekly news bulletin is being distributed via email to the research community and the III website is being updated and re-designed. One of our key audiences are the mid-career researchers, as identified by the Institute external review panel, III is investing strategic efforts into reaching out to that stakeholder

group of the infection and immunity research community. The Institute also foresees a change in the way the community is engaged in its activities. Along with III's pro-active participation in national and international scientific meetings through the organization of symposiums and sessions to highlight III researchers, networking opportunities will be created in order to facilitate broader collaboration within the III community and with the Institute directly.

Collaborations and Partnerships

The III believes in collaboration and teamwork and will continue to leverage its investments by reaching out to national and international partners. The Institute will build on the CIHR Partnership Strategy currently being developed and on previous partnerships built by the previous administration team. Internally, the Institute will continue its collaborative work with other CIHR Institutes in order to maximize and synergize the efforts made towards the research community. III's mandate being broad, it encompasses multiple diseases, emphasizing the importance of a collaborative approach in order to drive successful multi-disciplinary initiatives. Therefore, the Institute will continue as a priority to foster the cross-fertilization of innovative ideas by supporting research collaboration. The Institute will continue to invest efforts into facilitating networking and collaborating activities both at national and international levels.



IV. CONCLUSION

As a short term extension of the 2013-2018 Strategic Plan, III has identified and will focus on specific areas of research in infectious and chronic conditions, as well as a renewed effort to update its communication plan, expand its partnerships and build capacity, while focusing on community engagement and consultations to identify its new long term priorities for the next 5-year strategic plan. The current extension of the strategic plan will allow the Institute to maintain its mission to provide leadership within Canada and internationally in the area of its mandate, until the new strategic plan is in place in 2021.