

Strategic Plan

2017-2020

INSTITUTE FOR RESEARCH IN IMMUNOLOGY
AND CANCER

Université de Montréal

INSTITUTE FOR RESEARCH
IN IMMUNOLOGY
AND CANCER



Université 
de Montréal





ROBERT TESSIER

Chairman of the Board of Directors at the Caisse de dépôt et placement du Québec and Chairman of the Board at the IRIC

MESSAGE FROM THE CHAIRMAN OF THE BOARD

It is with great enthusiasm and optimism that I present to you the IRIC's 2017-2020 Strategic Plan. This planning exercise builds upon the growing challenges facing the IRIC after over a decade of activities marked by continuous growth. It embodies the strong commitment to see the Institute flourish among the world's leading cancer research centres and to securing the ongoing funding of its activities, while maintaining the organizational agility needed to meet these challenges.

The strength and uniqueness of the IRIC lie in the integration of its activities in a continuum spanning the understanding of the mechanisms of cancer to the development of new drugs and innovative therapies. Its renowned researchers and their teams, as well as its highly qualified personnel, have demonstrated their ability to generate new knowledge and to advance fundamental science towards the discovery of new therapeutic solutions.

This strategic plan is perfectly in line with the vision of the Université de Montréal as well as the governments of Québec and Canada. The positioning of the IRIC in the life sciences ecosystem contributes to promote the innovation and the excellence of our health sciences as well as to raise their international profile. Additionally, the arrival of the Oncopole within the IRIC highlights the collaborative approach and openness of the Institute, and will promote synergy among the field's various key players, and to maximize the socio-economic benefits for Québec and Canada.

It is clear to me that the IRIC is playing a major role in the fight against cancer. I invite you to support us and to contribute to our success.



MICHEL BOUVIER

Chief Executive Officer

MARC THERRIEN

Scientific Director

MESSAGE FROM THE CHIEF EXECUTIVE OFFICER AND THE SCIENTIFIC DIRECTOR

It is with great pride that we present the 2017-2020 Strategic Plan for the IRIC. More than four years ago, we were entrusted by the Université de Montréal, and all the IRIC researchers, with the responsibilities of overseeing the general management and its scientific counterpart. We do so as a team, collegially, and in a spirit of collaboration which has always been an intrinsic part of the IRIC DNA.

Through this strategic plan, we undertake wholeheartedly to continue implementing the IRIC vision which has driven all its members since the establishment of the Institute: to have a true impact on cancer treatment. It is our profound conviction that the Institute will continue to distinguish itself through its successes, while dealing with the requirements of basic research as well as the practical imperatives of applying its discoveries to the treatment of cancer. We are fully aware of the uniqueness of the IRIC and of its appeal for the scientific community. This is why collaboration and complementarity are strategically put forward, beyond the four walls of the IRIC, to promote synergy among all the key players in the community who are also working on finding a cure for cancer.

We are enthusiastic ambassadors of the accomplishments of IRIC members. With your support, your passion, and your commitment, you contribute to the success of our organization.

Admittedly, we will be faced with significant challenges in the next three years, but we are convinced that together, we will also be witness to many advances in each one of our missions.



VISION

To be a global standard bearer in basic and applied research to vanquish cancer

THREEFOLD MISSION

- Acquiring new knowledge through high-level basic research
- Accelerating the discovery of new therapies
- Training tomorrow's scientists



VALUES

EXCELLENCE

INNOVATION

INTEGRITY

COLLABORATION

COLLEGIALITY

THE IRIC IN 2017

The IRIC was the brainchild of a group of influential visionaries who identified the key success factors required to build an innovative research model with a distinctive collegial and multidisciplinary approach, with the clearly expressed goal of having a major impact on the understanding and treatment of cancer. By bringing together cutting-edge research facilities, a drug discovery chain in the academic sector, close collaborations within the clinical and pharmaceutical communities, as well as innovative teaching methods, the Université de Montréal (UdeM), supported by a donation from the Marcelle and Jean Coutu Foundation, created the IRIC in 2003 as a unique research institute applying integrative biology approaches so as to unlock the mechanisms of cancer and accelerate the discovery of more efficient therapies.

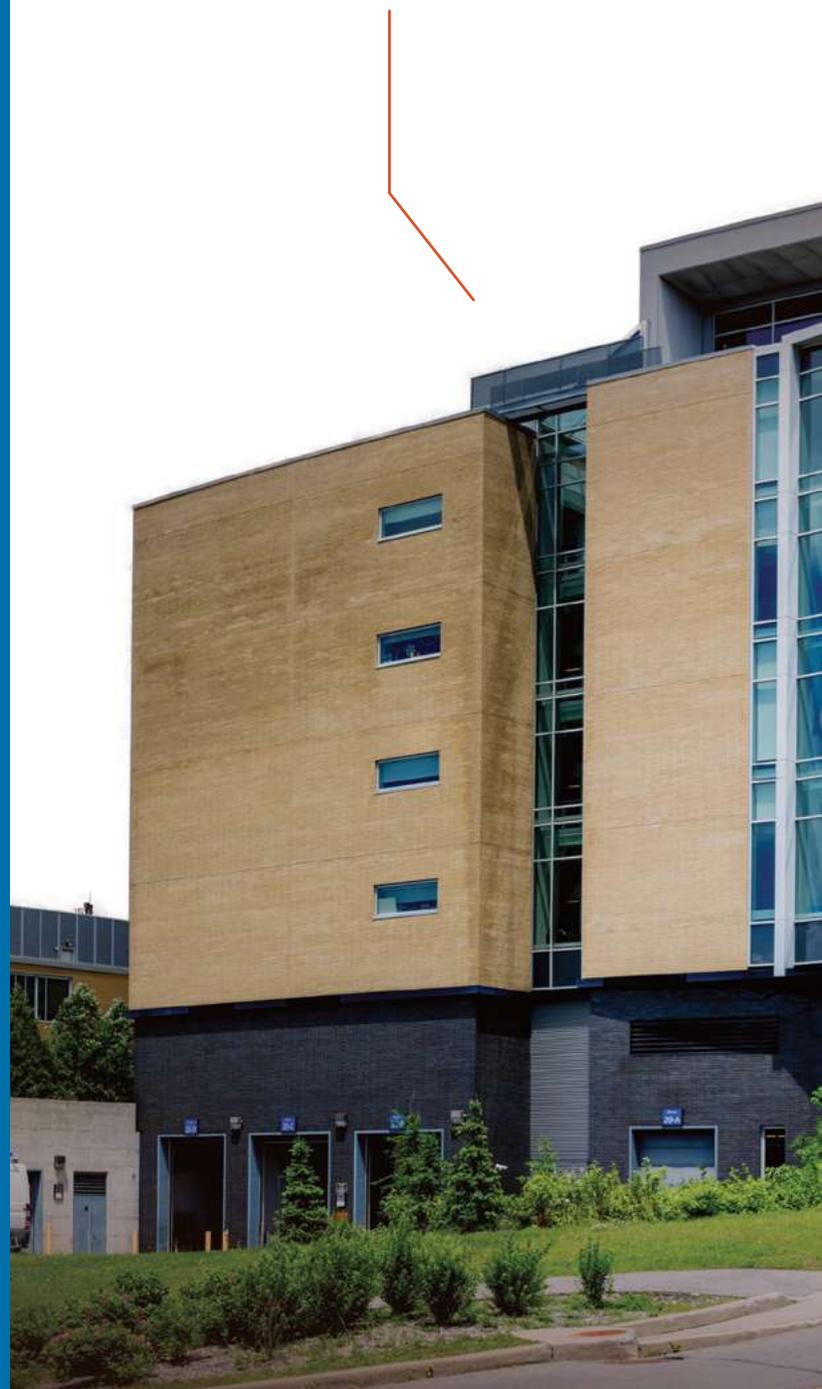
The IRIC is the flagship of the UdeM's biomedical research ecosystem. Its missions and goals are perfectly aligned with those of the university, namely to position the UdeM as one of the international front runners among major research universities and to increase its contribution to scientific breakthroughs by promoting a creative academic model. By providing privileged access to all the university's researchers to its state-of-the-art equipment and to the services of its highly qualified professionals, the IRIC also plays a pivotal role for all life sciences at the UdeM.

Moreover, the IRIC stands out among some fifteen cancer research centres across Canada, even though the latter hold, in some cases, 2 to 3 times the number of oncology research units. These centres have many similar and complementary strengths to those of the IRIC, particularly in basic research.

The institutional integration of these multidisciplinary activities, led by its Executive Committee, as well as its threefold mission, namely basic research, training and drug discovery, make the IRIC a unique centre in Canada.

UNIQUE MODEL

The IRIC is the only centre that brings together, under one roof, leading basic research activities, an innovative university-level training program, a commercialization team, as well as strategic partnerships with the biopharmaceutical industry and clinical centres.



TECHNOLOGICAL EXPERTISE

The IRIC also holds technological expertise in close to a dozen specialized fields, high-throughput screening and medicinal chemistry groups.

PROJECTS IN CLINIC PH I AND PH II

Projects stemming from the IRIC are currently in phase I and II clinical trials in hospital centres across the country, namely at the Jewish General Hospital, the Hôpital Maisonneuve-Rosemont, McMaster University Medical Centre, the Centre hospitalier de l'Université Laval as well as at the University of British Columbia.

The IRIC is a unique research centre in Canada



CLOSE TO 500 DEDICATED INDIVIDUALS

researchers, students, postdoctoral fellows,
technicians, research professionals, support staff
and administrative staff

A rich network of collaborators
throughout Québec, Canada and
around the world

An overall average annual
operating budget of \$47M



MORE THAN 200

young scientists in training each
year. A vast scientific activity
program and multidisciplinary
training programs

28 PRINCIPAL INVESTIGATORS

professors in 8 departments of the UdeM's Faculty of Medicine and Faculty of Arts and Sciences, holding among them 10 Canada Research Chairs and 1 private research chair

OVER 850 SCIENTIFIC PUBLICATIONS, with a significant percentage published in the most prestigious journals

11 HIGH-TECH CORE FACILITIES constructed and equipped at a cost of \$110M and operated by highly skilled professionals

A yearly average of \$15M in research funding from government agencies

IRICoR

access to a unique drug discovery chain in an academic setting

19 STRATEGIC PARTNERSHIPS

13 LICENCE AGREEMENTS

40 PATENT FAMILIES

CLOSE TO 30 PROJECTS in preclinical development

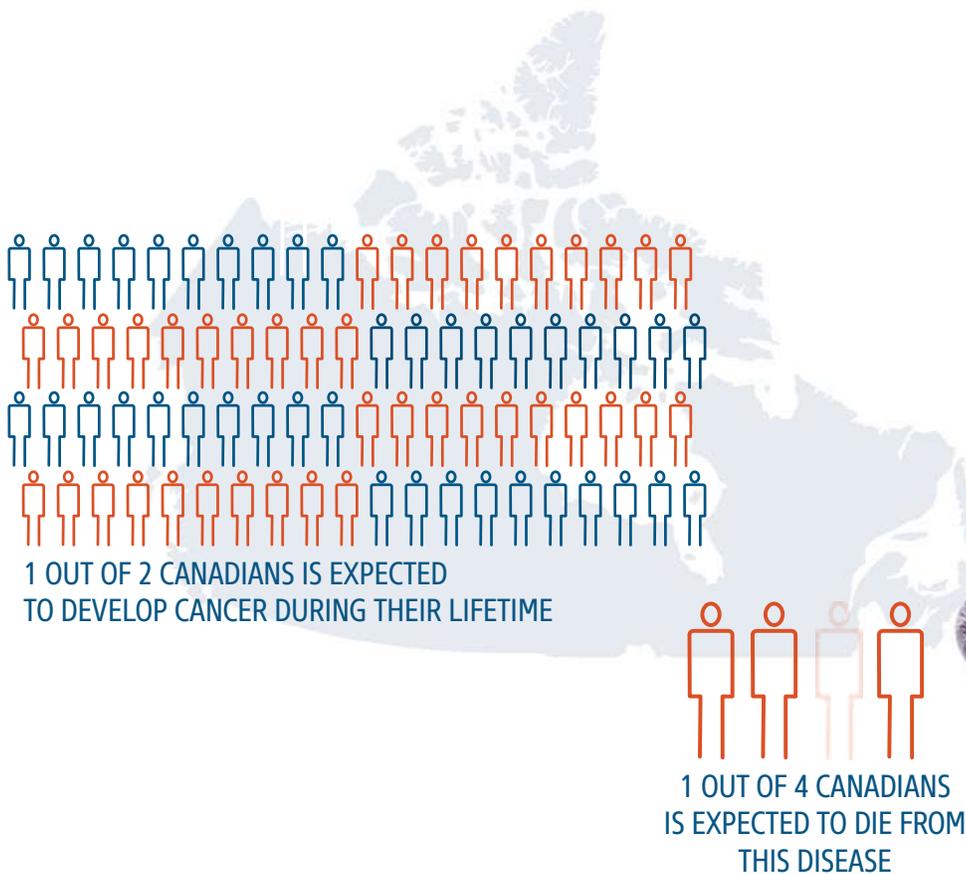
5 CLINICAL TRIALS to this day (phase I and II)

4 SPIN-OFF COMPANIES

CANCER: A SOCIAL ISSUE

Cancer is a devastating disease and a major social issue that affects us all. 1 out of 2 Canadians is expected to develop cancer during their lifetime, and 1 out of 4 Canadians is expected to die from this disease. Cancer is the leading cause of death in Canada.

This disease is responsible for more than 40% of all potential years of life lost in Canada. Beyond its dire consequences on patients and their families, cancer also places an enormous strain on society by its adverse impact on the health care system as well as the country's economy.



200 000  NEW CASES

90 000  DEATHS

IT IS ESTIMATED THAT IN 2017 ALONE, MORE THAN 200,000 NEW CASES WILL BE DIAGNOSED IN CANADA, AND THAT CLOSE TO 90,000 CANADIANS WILL DIE FROM CANCER

(Canadian Cancer Statistics - 2017, Canadian Cancer Society)

RESEARCH: THE ESSENTIAL FOUNDATION OF THERAPEUTIC ADVANCES

Thanks to basic research and the use of appropriate model organisms, the last decades have seen spectacular advances in our understanding of cancer biology, so much so that the molecular causes of the genesis of this disease are now better understood.

All cancers are the result of an accumulation of genetic alterations (mutations) in one of our body's cells, which results in said cell becoming abnormal and leading eventually to a disorderly cell proliferation and tumour formation. This summary description conceals the extreme complexity of the problem, as demonstrated by recent conceptual and technological advances. To understand cancer biology, it is therefore essential that we first understand cell biology.

200 DIFFERENT TYPES OF CANCER

In fact, each of the 200 different types of cancer can be caused by a number of different mutations producing specific anomalies at the molecular and cellular level.

FULL RANGE OF GENETIC AND MOLECULAR ABNORMALITIES

We must then consider the complexity brought on by the molecular adaptive mechanisms that occur as the disease progresses. Cataloguing the full range of genetic and molecular abnormalities associated with each particular type of cancer, and even with each patient's cancer, in order to develop more specific, customized, and therefore more effective therapies, is one of the main challenges facing the scientific community today.

TRADITIONAL THERAPEUTIC APPROACHES

Traditional therapeutic approaches such as chemotherapy and radiation therapy are non-specific and are often accompanied by significant adverse side effects. For that reason, all hopes now rest on the development of targeted and customized therapies which are suited to each type of cancer for each patient, and resulting from a comprehensive understanding of the molecular and cellular mechanisms of the causes of the disease.



THE IRIC FACED WITH INCREASING CHALLENGES

The discovery of the biological mechanisms of oncogenesis and the development of more efficient and better suited therapies against cancer are daunting challenges that require the concerted and collaborative efforts of the various bodies and stakeholders that can influence the success of such an initiative. Some of the major challenges facing the IRIC are:

- Adapting to the transformation of the research ecosystem and biopharmaceutical industry
- Maintaining the necessary organizational efficiency
- Training tomorrow's scientists
- Securing the necessary funding to sustain scientific breakthroughs



Therefore, the IRIC must increase its efforts on several fronts, often diverting a somewhat too significant share of its researchers' time towards the search for funding and various other forms of support, even within the UdeM, rather than towards scientific research.

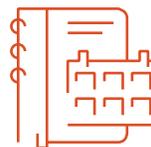
A CHANGING ECOSYSTEM

In the past few years, significant changes have taken place in the world of research. The internationalization of collaborations, the increasing number of large-scale projects calling for multidisciplinary teams, the partnerships required by co-financing programs, the integration of big data analysis tools - these are all realities facing research centres in the academic sector. The IRIC is no exception, but nonetheless, it is constantly anticipating changes by positioning itself so as to seize the opportunities that may arise from these new realities.

SIGNIFICANT CHANGES



Internationalization
of collaborations



Increasing number of
large-scale projects calling for
multidisciplinary teams



Partnerships required by
co-financing programs



Integration of big data
analysis tools

Furthermore, drug discovery activities have long been limited to the pharmaceutical industry which took charge of all facets of the value chain. However, in the last decade, the biopharmaceutical ecosystem has undergone a major transformation. Faced with difficulties in meeting the increasing demands of releasing innovative new therapies, major pharmaceutical companies have decentralized their activities by forming partnerships with, among others, the academic sector. This paradigm shift has resulted in the migration of a great number of pharmaceutical experts towards new kinds of organizations that have become necessary in the pursuit of the discovery of new drugs and therapies.



ORGANIZATIONAL EFFICIENCY

Thanks to its visionary members, the IRIC got involved very early as a proactive player in this transformation by enhancing its scientific excellence with a drug discovery and research commercialization unit with industry-level standards. So as to position itself internationally as a partner of choice through its distinctive research model, the IRIC maintains its efforts to attract and retain the best experts, as well as their know-how, in every area of its activities and considers an organizational structure able to provide a productive and enhancing environment which meets the standards of world-renowned centres as critical. The specific nature of the IRIC as well as the offered compensation packages remain determined by the UdeM and are based on the standards applied throughout all faculties. These terms, which do not reflect the needs of the model and vision of the IRIC, pose an obvious threat.

Despite a history of impressive successes thus far, the challenge remains substantial for the IRIC who must grapple with a university governance structure which is often, implicitly, far from flexible but which must respond swiftly to an ever-changing environment where competition for resources is fierce.



TOMORROW'S SCIENTISTS

Training the most outstanding future scientists both at the national and international level, has been an integral component of the IRIC mission since its very beginnings. Nevertheless, attracting high-level motivated candidates requires constant efforts in order for our training offer to remain internationally competitive. The wide range of positions required nowadays by this ecosystem, as research redefines itself, along with the funding issues of the past years, is an ever-growing challenge as we strive to prepare the next world-class generation of researchers.



As part of the UdeM, the IRIC holds the key elements necessary to provide a comprehensive training program and to be an international-level magnet for young people eager for new discoveries and knowledge, with a strong desire to make a difference. Consequently, these knowledgeable graduate students and postdoctoral fellows help position the IRIC among world leaders in cancer research during their training at the IRIC and throughout their ensuing career.

RESEARCH FUNDING

The funding of IRIC activities rests chiefly on four sources: research grants from public and government agencies, the support of the UdeM, R&D industry partnerships and philanthropic funds. It is imperative for the IRIC to secure the equilibrium and stability of its various funding sources.

Public and
government agencies



R&D industry
partnerships





Université de Montréal



Philanthropic funds

Whereas cancer research advances require, more than ever, a wide variety of expertise and increasingly expensive experimental methods, the financial environment in which Québec universities operate, including the UdeM, is far from optimal to support high-level research. Furthermore, the budgets allocated to the main granting agencies are no longer sufficient to meet the funding applications as well as the financial needs that have steadily increased in the past decade. As a result, the success rate of the competitions held by the Canadian Institutes of Health Research (CIHR), the main biomedical research support agency in Canada, has fallen in the past 10 years, and has now reached historically low levels.



RESEARCH FUNDING

PUBLIC AND GOVERNMENT AGENCIES

Government support is often the most powerful lever to secure funding from other sources. In the past few years, IRIC researchers have gotten involved in the development of large-scale projects supported by special funding programs at the provincial, federal and international level. Beyond project funding, these programs provide support for operations and the development of research infrastructure such as core facilities. However, despite the current willingness of governments, whether provincial or federal, to support innovation in life sciences, it is difficult to reconcile their existing funding programs with the IRIC's unique proposals, jeopardizing the survival of such a model despite it being highly regarded and having a proven track record. It must also be acknowledged that proactive representations to government bodies are not yet sufficiently rooted in university culture.

The challenge that lies before the IRIC is to ensure greater appreciation of its unique model by building strong and long-lasting relationships with the appropriate provincial and federal ministries.

RESEARCH FUNDING
UNIVERSITÉ DE MONTRÉAL



RESEARCH FUNDING

R&D INDUSTRY PARTNERSHIPS

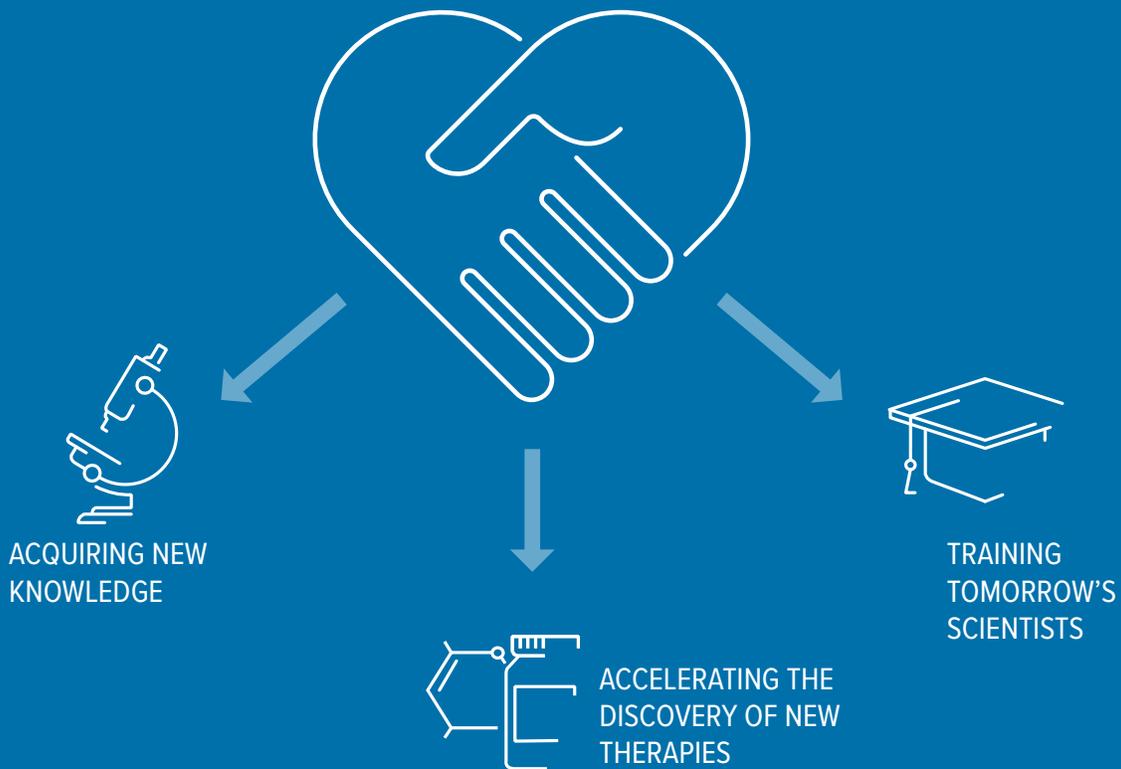
In collaboration with IRICoR, its commercialization unit, the IRIC is actively working towards establishing partnerships with the biopharmaceutical industry and creating companies. These partners' input, in expertise as well as through their financial support, is vital to seeing the IRIC's new therapies reach patients. In addition to its growing success since 2008 with a major partner in the pharmaceutical industry, the IRIC, owing to its original research projects with high therapeutic potential, is focusing on the diversification of its partnerships in a risk-sharing model.



RESEARCH FUNDING
PHILANTHROPY

Philanthropy is an integral part of the participatory culture conveyed by members of the IRIC and embodies an essential contribution to numerous strategic activities which allow the Institute to set itself apart.

Philanthropic donations contribute to supporting the IRIC’s threefold mission:



In addition to appealing to major donors, the IRIC organizes fundraising events such as the IRIC Great Challenges against cancer and the Audacious benefit event which call on the community. To set itself apart at a time when appeals to potential donors are never-ending, the IRIC must build on effective communications and a greater visibility of the unique and distinctive features of its research and discovery model. As a result, donors from all walks of life, being better informed and aware of the significance of their donations, are able to contribute to the increased visibility and success of the IRIC.

THE IRIC: THINKING BIG

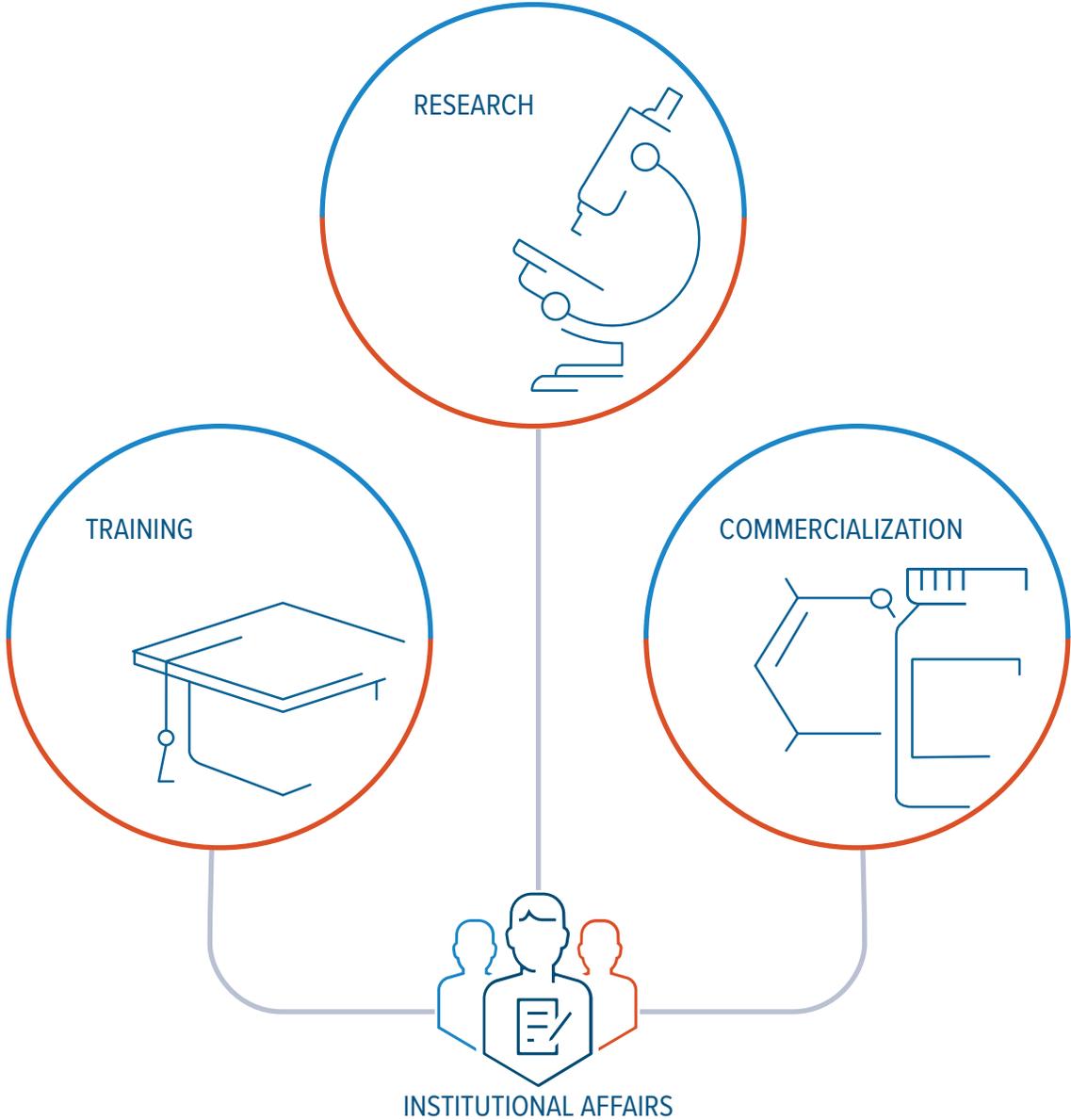
Ever since its founding in 2003, the IRIC has seen spectacular growth and has demonstrated its ability to reconcile the imperatives of basic research with building partnerships with the private sector, thereby earning an enviable reputation within the scientific and biopharmaceutical communities.

Having achieved considerable organizational maturity, the IRIC has now reached another stage in its development, empowering it to take on the role of unifier among cancer research centres. For instance, the arrival of the Oncopole within the IRIC in 2017 will provide many research centres in Québec with an access to the expertise developed at the IRIC and, consequently, to accelerate the transfer of innovation towards clinical centres or even the development of new partnerships with the industry. Furthermore, the growing ties between the IRIC and Vancouver's Centre for Drug Research and Development and Toronto's MaRS Innovation provide the IRIC with new opportunities to increase its network of influence nationwide.

To bring its audacious vision to life and to counter various threats, the IRIC has set the two following strategic directions for the next three years:

STRATEGIC DIRECTION 1
**POSITION THE IRIC AMONG WORLD
LEADERS IN CANCER RESEARCH**

STRATEGIC DIRECTION 2
**ENSURE CONTINUED FUNDING
FOR IRIC ACTIVITIES**



PILLAR ACTIVITY

RESEARCH

Any therapeutic innovation is necessarily indebted to the basic research that came before it. Accordingly, the constant focus of supporting excellence and distinctiveness in basic research has been reflected in the IRIC's scientific program from its early days. As such, the Institute has put in place the necessary mechanisms and facilities to support these efforts. In addition to experienced research teams and a vibrant scientific life, a team of more than 80 highly-qualified professionals provides services in 11 high-tech core facilities, which are bio-imaging, bioinformatics, biophysics, medicinal chemistry, high-throughput screening, cytogenetics, flow cytometry, genomics, histology, proteomics and in vivo biology. The integration of these unique research infrastructure, housing highly specialized equipment and serving close to 300 research groups every year, is a component that is crucial to the IRIC's success and a major attraction for the UdeM scientific community as well as to others from the academic and industrial sectors. There are few academic research or hospital centres bringing together, under the same roof, all these facilities, numerous professionals and many research teams.

The IRIC encourages a vibrant scientific life by organizing and holding various events: over 30 seminars presented every year by world-renowned researchers, an annual international symposium which brings together some twenty guest speakers from around the world, a weekly in-house seminar series, an annual scientific retreat, an annual scientific day, and a dozen occasional workshops or seminars.

Even though all aspects of IRIC research have focused on four main themes, namely cell signaling and the regulation of gene expression, cell-division regulation mechanisms, hematopoietic stem cells and leukemia and molecular diagnostics, and, finally, targeted therapies and immunotherapy, the coming years will see the development of new promising areas of research and expertise related to our vision.

SPECIFIC CHALLENGES

Develop the most innovative and relevant research focuses

Support the development of the academic careers of researchers

Develop high-tech core facilities and ensure their long-term viability



PILLAR ACTIVITY
RESEARCH

STRATEGIC DIRECTION 1 **GLOBAL LEADER**

AREAS OF INTERVENTION	GOALS	TARGETS
Research expertise	Review research focuses	Main topics reviewed and updated (for November 2017)
		Additional principal investigators recruited (3 for 2018-2020)
		Number of principal investigator positions upheld (32 by 2020)
	Maintenance and development of relevant expertise	IRIC associate investigators program reviewed and updated if need be (for December 2017)
Networking activities with centres having complementary expertise (at least two per year)		
Research infrastructure	High-tech core facility development	Services (technologies and professional expertise) reviewed and service offer updated (in May of each year)
		Platform accessibility guidelines issued (in September 2017) and prioritization process put in place
Mobilization and knowledge transfer	Maintenance of a relevant programming	Various components of the programming assessed and updated (in September 2017); Participant involvement and satisfaction significantly increased (over 3 years)

STRATEGIC DIRECTION 2 **FUNDING**

AREAS OF INTERVENTION	GOALS	TARGETS
Attraction and retention of researchers	Adjustment of status of professors hired through Canada Research Chairs (CRC) programs; Integration of Research Assistant Professors	Salaries and bonuses maintained, based on set criteria (for all 3 years)
	Secure additional funding	Philanthropic targets consistent with research goals
	Mentorship development and academic career support	Success rate with funding agencies maintained above national average; academic career development improved through implementation of a support structure (January 2018)
Platform operating funds	Securing additional funding	Diversified sources of revenue from philanthropic sources or funding agencies
	Secure annual funding originating from the UdeM	Targets stabilized for all 3 years

An annual review of the plan is scheduled.



PILLAR ACTIVITY

TRAINING THE NEXT GENERATION

The IRIC plays a leadership role among training centres with close to 200 young researchers enrolled in one of the various UdeM programs each year. The Molecular Biology program's Systems Biology Option, created and administered by the Institute, is one of the core components of the IRIC training program and has welcomed to this day more than 225 master's and PhD students. Characterized at the Masters' level by its summer school and laboratory research training, this option received in 2010 the Graduate Studies Teaching Excellence Award from the Faculty of Medicine which recognized its innovative nature. Students are given the opportunity to gain an understanding of both basic and applied concepts in cutting-edge research areas. They are trained by world-class researchers and have access to leading-edge technology core facilities.

The Institute supports two student scholarship programs. The IRIC Next Generation Awards program makes it possible for some fifteen undergraduate students to take part each summer in a 12- to 16-week research internship in one of the IRIC's laboratories, and hopes to encourage them to pursue their graduate training at the IRIC. As for the IRIC Perseverance Awards, it supports each year some fifteen graduate Systems Biology students (at the Master's level). Over 50% of all graduate students currently enrolled at the IRIC originate from outside of the country, a clear indication of the Institute's significant international profile.

The Institute's Office of Academic Affairs and the Student Recruitment Committee have set up a number of measures to stimulate the recruitment, both nationally and internationally, of the highest-performing students. Since 2014, the IRIC has organized, the Annual Student Recruitment Event, providing selected students with the opportunity to take part, upon invitation, in three activity-filled days where they can meet researchers and learn more about the IRIC's graduate studies. In the course of the two first editions, the IRIC welcomed some forty participants hailing from 8 countries and over 20 different universities. The Institute has also taken part, since 2012, in student recruitment fairs (in Canada and France) to meet with students interested in biomedical research.

One of the key factors in the IRIC's success and high level of research competitiveness is the quality of its students and postdoctoral fellows, as they are a large segment of the research teams who are actively involved in ongoing projects. Furthermore, since its creation, the IRIC provides rewarding career prospects to its students through the quality of the training offered.

SPECIFIC CHALLENGES

Offer high-quality training

Recruit the best students and postdoctoral fellows

Provide competitive financial support



PILLAR ACTIVITY

TRAINING THE NEXT GENERATION

STRATEGIC DIRECTION 1 GLOBAL LEADER

AREAS OF INTERVENTION	GOALS	TARGETS
Training program	Optimization of the master's program in Systems Biology	Summer school courses updated (April 2020)
		One year program assessed (for April 2018); Recommendations implemented (for April 2020)
		Regular two-year Master's program in Systems Biology created (April 2020)
	Implementation of training supplementing our existing programs	Inventory of transversal skill development trainings implemented (September 2017) and continuous updating
Student and postdoctoral fellow recruitment	Recruitment of the best candidates	Number of applications from high-level students with a strong interest in research increased (10% per year)
		International recruitment networks increased

STRATEGIC DIRECTION 2 **FUNDING**

AREAS OF INTERVENTION	GOALS	TARGETS
Scholarships for students and postdoctoral fellows	Secure additional funding	Funding from philanthropic sources increased (for all 3 years)
	Enhancement of scholarship program	Number of undergraduate and Master’s scholarships increased by 25%
		New PhD scholarships created
		Two partial fellowships towards postdoctoral fellow recruitment awarded per year
		Ten conference scholarships awarded per year
Five fellowships towards professional training for postdoctoral fellows awarded per year		
Office of Academic Affairs operating funds	Secure annual funding originating from the UdeM	Annual funding upheld (for all 3 years)

An annual review of the plan is scheduled.



PILLAR ACTIVITY

COMMERCIALIZATION

The IRIC is far more than a traditional research centre. Its uniqueness also lies in its environment, as the boundaries between basic research, translational research and clinical studies blur into one another. The development of projects with therapeutic applications is in fact the extension of the basic research projects of IRIC researchers. To support these efforts, the Institute created IRICoR (Institute for Research in Immunology and Cancer — Commercialization of Research) in 2008, its very own research commercialization unit. IRICoR is a not-for-profit centre whose main objective is to accelerate the transfer of academic research results to patients through the development of strong partnerships with the private sector and the creation of new companies. The agreements concluded by IRICoR help accelerate the maturation of innovative academic research projects up to the start of the clinical phase, thereby leading to financial returns which are then reinvested in research to support the drug discovery chain.

IRICoR provides research groups and their collaborators with professional business and scientific support, strong expertise in intellectual property protection, business development, and project management, and allows them access to cutting-edge core facilities. IRIC-IRICoR has already demonstrated the success of its model with many projects stemming from research done chiefly at the IRIC. As a research commercialization centre now internationally recognized, IRICoR will broaden the scope of its service offer to other centres throughout the scientific community in Québec, across Canada, and around the world.

IRICoR meets without a doubt the needs and challenges recently conveyed by the governments of Québec and Canada, namely the increased international visibility of the innovation and excellence of our life sciences sector, the implementation of a synergistic approach between the various innovation stakeholders, and the health and social services network so as to support the quick transition of research benefits towards patient health, as well as increased socio-economic benefits for Québec and for Canada.

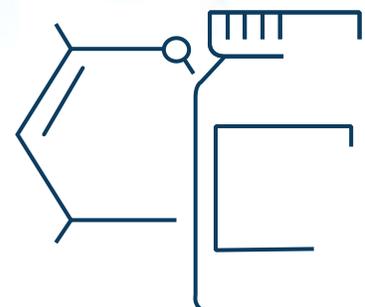
SPECIFIC CHALLENGES

Effectively identify promising projects with therapeutic applications

Enrich our risk-sharing model through increased collaborations and partnerships

Provide the key elements needed for the creation of companies in an academic setting

Create and retain an unrivalled expertise in Québec and in Canada



PILLAR ACTIVITY

COMMERCIALIZATION

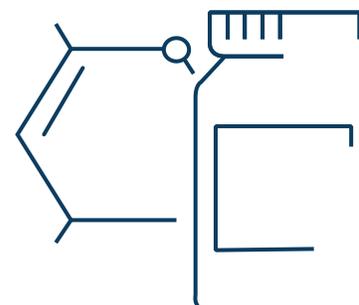
STRATEGIC DIRECTION 1 GLOBAL LEADER

AREAS OF INTERVENTION	GOALS	TARGETS
Project portfolio	Optimization of the project selection process for funding	Process reviewed and changes implemented (September 2017)
	Increase of the portfolio's value through innovative projects with strong commercial potential; Balance between IRIC projects and external projects	Value of the portfolio increased as follows by 2020: <ul style="list-style-type: none"> • High-commercial value patent application filings increased (at hit-to-lead stage) ; • Balanced project portfolio: 67% in early stage and 33% at a more advanced stage; • Proportion of external projects increased
	Development of new collaborations and partnerships with academic and hospital centres	New projects incorporating upcoming technological solutions added to the portfolio (big data management, artificial intelligence) (in April 2020) Additional collaborators providing access to complementary technologies and clinical facilities (April 2020)
Drug discovery unit	Update drug discovery unit structure	Activities as well as management and leadership roles reviewed and implemented (December 2017)
		Platform accessibility guidelines issued (in December 2017) and prioritization process put in place
Visibility in the ecosystem	Positioning IRICoR as a life sciences and cancer research and project maturation cluster	Plan for representation to key players in the national and international ecosystem implemented (December 2017)
Entrepreneurial expertise	Building entrepreneurial expertise at the IRIC	Advisory committee for business start-up opportunities established (January 2018); Entrepreneur in residence Program launched (January 2019)
	Offerings of life sciences entrepreneurial development opportunities for the rising generation	Non-credit training program in life sciences and drug discovery entrepreneurship launched (January 2018)

STRATEGIC DIRECTION 2 **FUNDING**

AREAS OF INTERVENTION	GOALS	TARGETS
Commercialization revenue sharing	Finalization of a sharing policy among inventors and contributors	Revenue sharing policy aligned with the IRIC’s strategic vision implemented (April 2020)
IRICoR statutes	Renewal of the agreement between IRICoR and the UdeM	Agreement signed (April 2019)
IRICoR office operating funds, including entrepreneurial projects and activities	Growth and diversification of sources of new funding	Sources of private funding increased <ul style="list-style-type: none"> • biopharmaceutics and venture capital • philanthropic sources
		Sources of public funding increased
	Secure annual funding originating from the UdeM	Annual funding upheld (for all 3 years)

An annual review of the plan is scheduled.



PILLAR ACTIVITY

INSTITUTIONAL AFFAIRS

From its creation, the IRIC has earned a reputation for excellence among the scientific community in Canada and abroad. This success lies, of course, on the outstanding quality of its research, as well as on its resources and facilities, its multidisciplinary approach, and the culture of collaboration among its stakeholders: researchers, government organizations, philanthropists, pharmaceutical companies, clinical settings, equipment manufacturers, members of the business community and the general public. But all these key factors in the IRIC's success are made possible through a flexible and creative governance and management structure.

The IRIC's Institutional Affairs provides leadership, support and structure to the three aforementioned spheres of activities and incorporates different sectors: Administration, Finance, Philanthropy and Development, Communications, Infrastructure, Information Technology and Human Resources. Every member of these different sectors contributes to the innovative model and uniqueness of the IRIC which is privileged to be able to count on an experienced, strong, agile, and committed team to provide its research teams with a level of support seldom seen in other centres.

The development and preservation of cutting-edge expertise and skills, among our scientists as well as our management and staff, are key elements to the successful support of growth and maturation of the IRIC in a fast-evolving ecosystem. Mindful of the significant financial and organizational challenges it will face within the UdeM, the IRIC aims to reach a reasonable balance between meeting its growing needs and the extent of the changes required to address them.

Building on its success and scientific advances, the IRIC means to rely on its talents and leadership to pursue its mission. To achieve the level of performance and organizational agility required to be counted among the world leaders, the IRIC is banking on working in close co-operation with the UdeM and the government.

SPECIFIC CHALLENGES

Sustain a high-level commitment in the management and leadership team

Acquire creative and efficient management and communication means to meet the IRIC's specific needs



PILLAR ACTIVITY
INSTITUTIONAL AFFAIRS

STRATEGIC DIRECTION 1 **GLOBAL LEADER**

AREAS OF INTERVENTION	GOALS	TARGETS
Communications	Raise profile and increase internal mobilization	External strategic communication plan submitted (December 2017); Increased awareness rating among key players in the life sciences ecosystem, scientific community, UdeM, governments, business community, opinion leaders, investors (April 2020)
		Internal communication plan submitted (April 2018); Increased awareness rating among the IRIC community (April 2020)
IRIC representation activities	Implementation of a representation plan intended for the ecosystem's decision makers, to raise their awareness of the issues related to our mission	Enhance IRIC's positioning as an opinion leader with key players in the life sciences ecosystem (April 2020)
Dealings with the UdeM	Recognition of the IRIC's specific needs	IRIC statutes reviewed to ensure agile internal and external governance (April 2020)
		Efficiency and effectiveness of business processes (recruitment, procurement, financial management) increased (April 2020)
Internal governance	Alignment of management and internal governance with the specific needs of the IRIC	Roles and responsibilities of leadership and management positions redefined (January 2018)
Compensation	Implementation of a salary structure which is competitive, fair and reflective of the IRIC reality	All IRIC employees integrated in the new structure (April 2020)
Management and computer tools	Deployment of computing solutions towards core facilities services billing and for procurement management	Effective computing solutions implemented and used at the IRIC: core facilities services (April 2019) and procurement services (April 2020)

STRATEGIC DIRECTION 2 **FUNDING**

AREA OF INTERVENTION	GOALS	TARGETS
IRIC operating funds	Secure additional funding	Securing new sources of funding (for all 3 years)
	Secure annual funding originating from the UdeM	Annual funding upheld (for all 3 years)

An annual review of the plan is scheduled.



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