

November 30, 2015

Dr. Richard Marceau
Vice-President (Research)
Memorial University of Newfoundland
St. Johns, Newfoundland, A1C 5S7

Dear Dr. Marceau,

I am writing to indicate my interest in considering a second term as Associate Vice-President Research (AVPR). Over the last 7 years I have enjoyed working with both you and your predecessor, Dr. Chris Loomis. The challenges and opportunities associated with this position have been rewarding and have provided me with great professional growth and development. It is the prospect of further interesting challenges and opportunities that attracts me to consider a further term as AVPR.

I have prepared a summary of my main activities during my time as AVPR, including periods when I was Vice-President Research (VPR), pro tempore. For much of my initial term as AVPR there have been circumstances (transition between VPRs, VPR medical leaves, portfolio and Genesis restructuring, additional strategic planning processes) that have resulted in my activities deviating somewhat from those originally envisaged by the original Terms of Reference for the AVPR position. In addition to the major responsibilities outlined in this letter I have also supported the VPR on an ad-hoc basis on a number of routine activities associated with the operations of the VPR portfolio.

Research Strategy Framework

During my initial appointment as VPR, pro tempore I led the process to develop a Research Strategy Framework for Memorial that provided guidance for Memorial to achieve significant future growth in research. During the first year of my appointment as AVPR in 2011, I continued to provide leadership for this initiative and the Framework was finalized and taken through Senate and Board of Regents during that year.

The Research Strategy Framework articulated goals and objectives associated with enhancing general support across the University for research and with providing specific support for areas of strategic opportunity. The process that I implemented to develop the Strategy was highly consultative and inclusive and motivated by my strong desire to achieve a Strategy that was reflective of opportunities for all academic units at Memorial and that would serve as a point of reference for future academic and administrative decision-making. The planning process, which was supported by Mr. Robert Greenwood who was assigned to the VPR office to help manage the process, engaged individuals and groups inside and outside of Memorial that represented key partners and collaborators with an interest in Memorial's research programs and activities. This included the establishment of an internal advisory board comprised of the Deans of Memorial's Faculties and Schools and leaders of the Marine Institute and Grenfell Campus, and an external advisory board that included leaders from the private sector, community organizations and government. The resulting Research Strategy Framework has served as a foundation for Memorial's Strategic Research Intensity Plan (SRIP) and the Technology Transfer and Commercialization Plan (TTCP) and

was the first of the three Frameworks that ultimately were integrated to form Memorial's Strategic Plan.

Strategic Research Intensity Plan (SRIP)

I worked closely with the VPR on the development of the Strategic Research Intensity Plan (SRIP) which built upon the Research Strategy Framework to define concrete actions for Memorial that would (1) accelerate the production and dissemination of scholarly outcomes, and strengthen the capacity to compete successfully for grants from Canada and abroad; (2) intensify the ability to supervise graduate master and doctoral candidates, and grow the pool of highly qualified human capital so important for building Newfoundland and Labrador, and Canada; and (3) enhance the capacity to address the research priorities of government, industry, and society at large in Newfoundland and Labrador.

In addition to participating in various consultation sessions associated with development of SRIP, I also worked closely with the VPR in writing the SRIP so as to achieve alignment with the goals of the Research Strategy Framework and in developing the actions and timelines for implementation of SRIP.

Following the approval of SRIP by Senate and the Board of Regents, and while Dr. Marceau was on leave, I also provided leadership as VPR, pro tempore and worked with the AVPR, pro tempore and other administrators in the VPR portfolio on the implementation of number of initiatives defined in the SRIP, including a new start-up funding model and process, a new financial model for Canada Research Chairs, a Seed Bridge and Multi-Disciplinary Fund, Research MUCEPs and a new University Student Summer Internship Program. I also worked closely with the Directors within the VPR portfolio to improve and enhance the services offered to the research community and to stabilize their operations from a budget perspective.

Re-integration of Technology Transfer Office

In July 2014, a decision was made to restructure the relationship between Memorial and Genesis Inc. on matters related to Memorial's technology transfer and commercialization functions. With the strong support of the interim Director of the office dealing with technology licensing and commercialization and a small team of commercialization professionals, I guided efforts to successfully move the technology transfer and commercialization functions into the VPR portfolio, albeit on a transitional basis pending the completion of the Technology Transfer and Commercialization Strategy. I have provided guidance and support on multiple aspects of the transition phase while aligning the overall direction of the new office with Memorial's research needs and aspirations.

During this timeframe, the new unit experienced service demands that exceeded five-year historical workload averages. During the transition year the unit processed 23 invention disclosures [5-year average of 11], filed 21 new patent applications [5-year average of 4], issued 26 new license agreements [5-year average of 2], and enabled or created three new spin-off companies [5-year average of 1].

In order to facilitate the establishment of more spin-offs from Memorial research projects by the personnel involved in those projects, I established a combined equity and royalty license model for use in licensing technologies to Memorial-based spin-off companies which need to maintain close working relationships with the originating research projects. This model was used in the creation of two of the new spin-off companies formed during the period of August 1, 2014 to July 31, 2015 and is currently being used in negotiations regarding the creation of two further spin-off companies and as part of a licensing deal with a further non-Memorial company.

As discussed below, several of actions in the Technology Transfer and Commercialization Strategy are directed at further refining the role and structure of a Technology Transfer Office and a new Project Management Office.

Technology Transfer and Commercialization Strategy (TTCS)

Coincident with the restructuring of Genesis Inc. in July 2014, I became significantly involved in the development of a planning process to reconsider Memorial's approach to technology transfer and commercialization. The formal process to develop a Technology Transfer and Commercialization Strategy (originally termed an Innovation Strategy) was launched in September 2014 by Dr. Marceau just before he went on leave. Effective September 2014 I assumed responsibility for the process to develop the Strategy and worked closely with Mr. Rick Meaney who was appointed to manage the process of developing the Strategy.

The process of developing the TTCS included a review of best practices and policies from select Canadian universities as well as extensive consultations with more than 100 industry associations, government agencies and industrial partners. In addition, input was sought from all faculties, schools and campuses of Memorial. An internal advisory committee, which included the Associate Deans of Research and other individuals at Memorial with responsibilities related to technology transfer and commercialization, and an external advisory committee, which included senior individuals from government, industry and community organizations, were formed to provide overall advice regarding the process of developing the TTCS and to comment and provide feedback on draft documents.

The initial consultations provided a basis for developing an initial draft of a TTCS which was released for internal and external consultation. There was considerable and substantive feedback received following release of the initial draft TTCS which resulted in significant revision to the strategy. It was deemed appropriate to release the revised TTCS for a further period of consultation before bringing it forward for approval by Senate and the Board of Regents. The final version of the TTCS was brought forward to Senate by the VPR in November 2015 and will go to the Board of Regents for approval in December 2015.

The TTCS recommends that Memorial implement a detailed action plan which aims to:

- Foster a progressive culture of technology transfer and commercialization,
- Revise and implement policies and procedures in support of technology transfer and commercialization,
- Establish responsive business structures and processes, and

- Ensure adequate oversight and guidance of technology transfer and commercialization structures and processes.

There are a number of significant policy and procedure reviews and organizational structural changes (e.g. implementation of a Technology Transfer Office and a Project Management Office) that will flow from the approval of the TTCS, and the AVPR will be significantly involved in implementation of these actions.

Strategic Internationalization Plan (SIP)

I served on the Steering Committee for the development of a Strategic Internationalization Plan (SIP) for Memorial that aims to leverage, coordinate and intensify the international activities at Memorial across the three strategic frameworks for Research, Teaching and Learning, and Public Engagement. The process of developing SIP was carried out with consideration to Memorial's special obligation to the people of Newfoundland and Labrador.

In September 2014 when I was appointed VPR , pro tempore, my responsibilities with respect to SIP changed from serving as a member of the Steering Committee to having overall responsibility for overseeing the consultation process through the Fall 2014 Semester and preparing the final version of SIP for presentation to Senate and the Board of Regents for their respective considerations. I presented SIP to Senate in January 2015 and to the Board of Regents in February 2015 where it received its final approval.

Ongoing Facilitation of Major Partnerships

One particularly challenging and rewarding responsibility that I have enjoyed during my appointment as AVPR and VPR, pro tempore has been nurturing large-scale research relationships with major companies and organizations and negotiation of win-win research agreements with these partners. My involvement has primarily been on initiatives that are multi-million dollars in scale and where the terms and conditions associated with the partnership are beyond those normally dealt with in Research Grants and Contracts Services (RGCS). These included relationships and agreements with Exxon-Mobil (Enhanced Oil Recovery), Suncor (Sour Gas Initiative), IBM (Translational Personalized Medicine Initiative), Shell (GEM development), American Bureau of Shipping (Harsh Environment Technology Centre), Irving (Ocean Engineering Initiative), CISCO (Research Chair agreement), Chevron (two Research Chair agreements), Wood Group (Research Chair agreement), Husky (amended Research Chair agreement), Suncor (Engineering Building expansion), and C-CORE (restructuring the Memorial-C-CORE governance relationship).

Each of these initiatives has involved other funding partners and stakeholders beyond the industry/organizations noted above and each initiative required several related agreements to be carefully coordinated. I believe that I have been very successful in developing relationships with these major research partners and in successfully negotiating win-win agreements for the partnerships.

The agreements negotiated have allowed the partnerships to be launched with the full involvement of Memorial faculty members, staff and students under intellectual property

and confidentiality terms that are in keeping with the Guiding Principles of Memorial's Research Strategy Framework which articulates a commitment to research excellence and a respect of the academic freedom of our researchers. The agreements have also been negotiated in keeping with objective of the Strategic Intensity Research Plan to increase dissemination of the results of research at Memorial through publication and other means appropriate to our disciplines.

Independent Review Panel on Hydraulic Fracturing

In October 2014 I was approached by the Minister of Natural Resources regarding the prospect serving on an independent Panel to undertake a public review of the implications of hydraulic fracturing operations in Western Newfoundland. Following consultation with Drs. Kachanoski and Marceau I agreed to take on the role of Chair of the Panel.

The mandate for the Panel was to conduct a public review of the socio-economic and environmental implications of hydraulic fracturing and to recommend to the Minister whether hydraulic fracturing should proceed in Western Newfoundland. As Chair of the Panel it was my role to provide leadership for the Panel in the development of an open and transparent process for stakeholders to submit information and make presentations to the Panel. This included the organization of a series of public consultation sessions in Western Newfoundland.

Aside from facing a significant technical learning curve associated with the field of hydraulic fracturing, as it is not my area of technical expertise, the work on the Panel also included a tremendous amount of time and attention to effective engagement of the many stakeholders, including proponents of development, community groups and organizations, government departments and municipalities and individual residents who wished to engage in the review process. Also, as Chair I had responsibility to engage with numerous experts that the Panel chose to retain to undertake specific pieces of work in support of the Panel.

The consultation phase of the Panel's work is mostly complete and currently I am providing leadership to the Panel in the preparation of the final report to the Minister and planning for its public release by the Panel. While perhaps not obviously related to the responsibilities as AVPR, this type of public engagement, which aims to address important matters for our Province, is in keeping with Memorial's commitment to public engagement and it is appropriate for members of the Senior Administration to be significantly involved in such activities from time to time.

Community Involvement

Through the tenure of my appointments in the VPR portfolio I have been involved as a volunteer on a number of national and provincial boards for public and private sector organizations. Currently I serve on the Board of Directors for the Health Research Ethics Authority, C-CORE, Shad International, Springboard Atlantic, and the Bruneau Centre for Excellence in Choral Music. I also currently serve on the Advisory Board for Whitecap Scientific. In recent years I also served on the Board of Directors for the Research and Development Corporation, Shallaway, and Verafin, and on the incubator Selection Board for Genesis Inc. prior to the restructuring of Genesis Inc. in July 2014. I have also volunteered

extensively with the Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL), the licensing body for engineering and geoscience in the Province, including serving on its Board of Directors with a term as Chair of the Board. Over the last 10 years I have also volunteered extensively with the Canadian Engineering Accreditation Board (CEAB) which oversees the standards of engineering education in Canada.

Continued Involvement in Research and Graduate Student Supervision

During my academic career I have developed and maintained an active research program, initially as an NSERC Industrial Research Chair at UBC, and subsequently as the Director of Intelligent Systems at C-CORE and as the J.I. Chair of Intelligent Systems at Memorial. Throughout my academic career I have been involved in collaborations and partnerships and I have collaborated extensively with industry and other academic and research colleagues in my personal research program. I have experience of developing and leading major research programs in collaboration with other universities, external research organizations and the private sector. While my administrative appointments have resulted in a reduction in the intensity of my research program, I continue to be involved in graduate student supervision and in the dissemination of research results in top ranked peer-review journals and conference proceedings.

Concluding Comments

During my tenure as AVPR I have built upon a strong network of contacts within government, research organizations and the private sector. My contacts are particularly strong within the energy, oceans, natural resource and technology sectors, which represent very significant partnership and collaboration opportunities for Memorial, as well as within a number of community and professional organizations and government departments that have shared interests with Memorial. I have made it a priority to be involved in a number of external boards, organizations and groups unrelated to my academic discipline in order to raise Memorial's profile among a broader range of important external stakeholders. Also, I believe that I am viewed as a very effective representative and advocate for research at Memorial within the community. I would be very interested to continue to make this type of contribution to Memorial for a further appointment term.

Thank you for considering this summary of my initial term as AVPR and I would be very pleased to discuss this further with you or your Review Committee. Please find attached to this letter a copy of my current CV that provides additional details about my activities.

Yours truly,



Ray Gosine, B.Eng, Ph.D, FCAE, FEC, P.Eng