York Research Chairs Program Report

Report from York Research Chair Program Review Panel

March, 2018

1. Purpose of the review and terms of reference

a. Context

Launched in the spring of 2014, the York Research Chairs (YRC) program serves as an internal termbased research support program for established faculty research leaders and more junior emerging research leaders. Designed to mirror the Canada Research Chairs (CRC) program, York Research Chairs — with five-year terms renewable (subject to availability of resources) through open, peer reviewed competition — are awarded competitively based on the criteria of excellence in research and scholarship, and contributions to research leadership. The program broadly supports research in all areas and disciplines, thereby enabling and enhancing York's research success and international recognition for its research achievements.

Initial programmatic approval provided for a total of 20 centrally-supported chairs over a five-year period. Following a double competition in the summer of 2014 for eight chairs, subsequent competitions were held in 2015 and 2016, each resulting in the appointment of four centrally-supported chairs. The 2017-18 competition will allocate the remaining four centrally-supported chairs. In addition Faculties have had the ability to develop additional dedicated chairs, while the VISTA CFREF project included a promise of up to 10 YRCs as part of the VISTA program. To date, 4 Faculty-based YRCs and two VISTA YRCs have been approved.

To help inform decisions around the possible renewal of the program, the Vice-President Research & Innovation formed the York Research Chairs Program Review Panel to assess the program and make recommendations in respect of its future.

b. Mandate

To inform this report, the panel was asked to:

- Undertake consultations with YRC chair-holders, Deans/Associate Deans Research, members of the Major Awards Advisory Committee, faculty members, York program administrators and other relevant stakeholders, and examine pertinent documentation.
- Develop an understanding of the program, including its goals, structure, criteria and processes, and an awareness of similar initiatives (including the Canada Research Chairs program) that can serve as an authentic and reasonable basis of comparison.
- Advise on the program's perceived accomplishments and/or limitations and its corresponding impact on chair-holders, and provide recommendations in regards to the continuity of the program on matters including, but not limited to, the selection criteria, adjudication process,

level of support provided to chair-holders, scale of the program, productivity of chair-holders, the program's impact on recruitment and retention, its ability to promote research intensification, and its impact on York's reputation for world-class research.

2. Procedure

a. Advanced documentation

In preparation for the site visit, the panel was provided with statistical and contextual documents regarding current York Research Chairs. In addition, information about the Canada Research Chairs program and York's current Canada Research Chair cohort was also provided for comparative purposes. The full list of material included:

- YRC Program Guidelines
- List of YRC Chair-holders, including number of years at York pre-appointment to YRC
- Short biographies of YRC Chair-holders
- YRC and CRC equity statistics
- YRC and CRC research funding awarded since 2012
- YRC and CRC field weighted citation impact (FWCI) since 2012
- List of CRC Chair-holders indicates whether CRC used for external recruitment
- YRC nomination data
- YRC and CRC Chair-holder Annual Reports (2015/16 and 2016/17), including
 - highly qualified personnel (HQP) Supervision Data
 - knowledge sharing intensity
- YRC and CRC Chair-holder CVs
- Tenth-Year Evaluation of the CRC Program report and Evaluation of the CRC Program (2016) report
- York University's CRC Allocation History

York University's recent research bibliometric and funding statistics

b. Membership of the Review Panel

Rose Goldstein, MD, CM, FRCPC Professor of Medicine Former Vice-Principal, Research and Innovation McGill University

S. Martin Taylor, PhD, FCAHS Executive Director, Canadian Research Data Centre Network Professor Emeritus, University of Victoria

c. Site Visit

As part of the assessment of the YRC program, the review panel conducted a site visit on February 15-16, 2018 and met directly with key stakeholders of the program. The agenda included sessions inviting commentary about the impact of the YRC program from York University's senior leadership, Faculties,

the committee tasked with initial selection of files, and Chair-holders themselves. Specifically, the review panel met with:

- Vice-President Research & Innovation
- Tier 1 YRC Chair-holders
- Tier 2 YRC Chair-holders
- Vice-President Academic & Provost
- Deans and Associate Deans Research
- Members of York's Major Awards Advisory Committee

Senior leadership at York discussed:

- Role of YRC in support of PIER (Plan for the Intensification & Enhancement of Research)
- Impact of YRC program on recruitment and retention of faculty members
- Financial considerations of the YRC program
- Thoughts on future direction/impact of YRC program

Faculty leadership (Deans and Associate Deans Research) were invited to speak about:

- the impact of the YRC program on:
 - Building research intensity
 - Advancing research leadership
 - o Faculty recruitment and retention
 - Cost/benefit associated with the program
 - Pursuit of external research funding
 - Productivity and leadership
- Influence on Faculty strategic research planning
- Suggested improvements to YRC program

The members of York's Major Awards Advisory Committee discussed:

- Adjudication process
- Selection criteria
- Program parameters (chair length, level of support, tier structure)

YRC Chair-holders were asked about:

- Impact of YRC program on:
 - Building research intensity
 - Collaborations
 - Recruitment and training of HQP
 - o Publications, knowledge sharing, outreach and engagement of stakeholders
 - Leadership activities internal and external to York
 - Pursuit of external research funding

- Internal and external perception of YRC program
- Suggested improvements to YRC program

3. Main Findings

a. Impacts on chair-holders' research programs

The YRC nomination and selection process ensures that chair-holders are either already recognized research leaders (Tier 1) or emerging leaders (Tier 2); so the question then becomes the incremental impact of the chair on accelerating and intensifying incumbents' research programs. The quantitative data on YRC research productivity, outcomes and impacts provided to the panel in advance of the site visit do not really allow for a definitive analysis or conclusion; so these observations depend primarily on qualitative insights gained in the course of the meetings with the various groups, and especially with the Tier 1 and 2 chairs themselves.

The additional time available to the chairs to focus on their research was repeatedly cited as perhaps the greatest advantage of holding a YRC, and this was especially true for the Tier 2 chairs. How this translated varied by individual but included the following compelling examples: time to develop high quality and innovative grant proposals more likely therefore to be funded; time to establish research collaborations with colleagues, internally and externally, nationally and internationally; time to write higher quality papers for submission to (and acceptance by) top ranking journals; time to spend mentoring graduate students; and time to build cohesive and multi-disciplinary research teams.

A second significant advantage of the YRC was its **perceived prestige value**, both internally at York and externally, nationally and internationally. While it was recognized that the value was less than a CRC, it was reported to have tangible and convincing effects including: recognition in grant applications; respect in assuming research team leadership; attraction of higher quality graduate students; and advantage in forging national and international collaborations. Internally at York, there was little, if any, sense that being a YRC engendered resentment among colleagues, even among those who had themselves been unsuccessful chair applicants; on the contrary, the sense was that the YRC program has done much to elevate the status of research at York supporting the notion that "the rising tide raises all boats".

It is important to note however that both of these advantages and associated impacts are contextual within the University. They are arguably more profound in Faculties where the research culture has been to date less strongly developed, and, by comparison, less marked in Faculties where that culture is entrenched and uniformly accepted as the norm. This distinction came out clearly in the panel's meeting with the Deans and the Associate Deans Research. The Faculty home of the YRC is important in another respect as well, namely the differences in normal teaching loads; the net benefit of the teaching release provided with the chair was viewed by some chairs as less valuable in Science, for example, which has lower teaching loads to begin with and led some to suggest that the minimum teaching load of 1.0 for chairs should be relaxed.

A third advantage, though probably ranked below the previous two by most chairs, is the **research stipend**. In this case, relative deprivation in overall research funding is clearly important. For chairs with access to much lower levels of funding based on their discipline and funding agency, the stipend (\$25K for Tier 1 and \$20K for Tier 2) is a substantial and significant benefit, especially to support graduate students in ways not otherwise possible; for those having access to higher levels of research support, the advantage is less but still valued.

A differential between the CRC and YRC programs was noted by some chairs as a significant disadvantage, namely eligibility to be awarded CFI infrastructure support under the John Evans Leaders Fund. While there is no solution to this, it reinforces the limit to which the YRC program can fully parallel the CRC program

In summary, the discussions with all the groups led the panel to conclude that the YRC program has had tangible and substantial impacts on the chairs' research programs and, while not necessarily measurable quantitatively, the qualitative evidence is compelling and convincing.

b. Impacts on graduate programs

Again, the impacts reported were more qualitative than quantitative. Moreover, the panel did not have the opportunity to meet with graduate students or post-docs to learn directly from their experience. That said, the panel noted that the advance data provided to them indicated that the YRCs were in general supervising an equal or greater number of HQP than the comparable faculty average. While it is likely for some chairs, especially in science disciplines, that the indirect benefit of the YRC on enhanced success in grant funding resulted in greater capacity to support more students, the more direct impact was on the ability to attract higher quality graduate students. This was seen as having a cumulative benefit on both the productivity of research programs and the quality of the outputs, for example, success in publishing co-authored papers in top-ranking journals. There was a sustained impact too in so far as the national and international reputation of the chair-holder's research program and team was elevated, so generating a steady stream of top quality graduate student applications.

As noted previously, the modest research stipend was used to good effect by most chairs to support graduate students including funding to attend conferences to present their research. By so doing, two objectives were advanced: raising the profile of York U research in national and international fora; and enhancing the career progress and prospects of students themselves.

It was somewhat unclear to the panel, and perhaps to the chairs themselves, as to the extent that chair-holders were expected to provide leadership in the development of graduate programs in their academic departments. The chairs typically reported being actively engaged in teaching graduate courses, and in some cases, introducing new courses or offering courses on a more frequent basis than might otherwise have been the case (e.g., annually); but it was not clear that they had assumed program leadership roles, and there was some understandable reluctance on their part to be drawn into

additional administrative responsibilities that could compromise achieving the primary research objectives of the chair. More generally, this issue points to some ambiguity in the strategic objectives of the YRC program related to some aspects of research leadership expectations.

Overall, the panel concluded that the net impacts on graduate students and graduate programs have been very positive and, that while quantitatively difficult to assess, the qualitative evidence is clear.

c. Impacts on faculty recruitment and retention

In this regard, the evidence of impacts is quite uncertain and mainly anecdotal. The YRC program was exclusively designed for internal nominations to complement the University's strategic decision to commit all of its CRCs for external recruitment. It is of course still possible that regular faculty recruitment could have been advantaged by the possible future prospect of a YRC award, but this was not explicitly mentioned by the Deans or others as a recruitment incentive.

The focus of the panel's attention on this issue was therefore on what impacts, if any, the program had on faculty retention, recognizing that this was more likely to apply to the Tier 2 group of emerging research leaders. The chairs themselves volunteered very little on this issue other than by implication that the enhancement of their research opportunities, progress and reputation afforded by the program increased their professional well-being and satisfaction with their faculty position at York, and so served as a disincentive to moving elsewhere or to responding to overtures from other universities. This sentiment was echoed by the Deans and Associate Deans Research who were clear that only in rare cases was a YRC nomination ever used as a retention tool, and only then if all other factors supported the case. They too were of the opinion that the impact of the program had much more to do with creating a research-intensive and supportive environment at York, and thereby a greater sense of professional satisfaction for faculty in general and a heightened loyalty and commitment to the University.

In sum, though by no means definitive, the anecdotal evidence points to a positive impact of the YRC program on faculty retention.

d. Impacts on departments' and Faculties' research achievements

As mentioned above, the YRC nomination and selection process ensures that chair-holders are already positively impacting departmental and Faculty research. Further, the panel did not review specific milestones or metrics regarding departments or Faculties. Again, these observations are therefore dependent on the qualitative feedback we received from the site visit. There was indication, from the chair-holders, as well as the Deans and Associate Deans, that there is a major impact on research culture and visibility, particularly in the less research-intensive Faculties. At least one Faculty Dean reported a doubling of that Faculty's sponsored research income over the last five years, and attributed this significantly to the YRC program.

The YRC program is not directly linked to the Strategic Research priorities at York, in that the selection criteria for YRCs do not require this alignment, as they do for CRCs. Nevertheless, some, though not all

of the Faculties use the YRC nominations to support the Faculty's strategic plans, for example, by putting forward nominations which support certain clusters or research themes, and linking their own selection criteria to the Faculty's strategic plan.

Both chair-holders and Deans reported that an important impact of the YRC program is the benefit to the research in their departments and Faculties beyond the chair-holder's own research program or group. Specifically, Deans and Associate Deans reported that their Faculties are strengthened as they can now recruit excellent talent externally, while also supporting their internal research leaders and emerging leaders. "We have the best of both worlds", one Dean reported.

e. Impacts on the University's research intensification

Research intensity is typically defined as the amount of research funding relative to the number of eligible principal investigators. During the last five years, the data we reviewed did not show any consistent, significant change in York's ranking nationally for research intensity. However, the CRC allocation to York, related to success in Tri-agency research funding, has increased, reflecting an increase in York's market share of this funding.

An important indicator of the University's research impact is the citation impact index, reflecting the number of times a researcher's publication is cited. The data indicate that, on average, and for the majority of YRCs, their discipline and overall citation impact indices, are higher than those of York's CRCs and higher than the York average citation impact index. This suggests a positive contribution to York's research impact by the YRCs.

The amounts of tri-agency funding awarded to YRCs is generally higher across all three councils (CIHR, NSERC and SSHRC) for YRCs compared to CRCs, both for Tier I and Tier 2 chairs, over the last few years. This indicates and supports very positive research intensity for the YRCs.

Overall, the panel was struck by the unanimity of support among all groups for the YRC program as being an important contributor to achieving York's goals of increasing research success and research intensity.

f. Impacts on the University's research recognition nationally and internationally

All of those interviewed expressed the view that the YRC program has enhanced York's research recognition at all levels, internally, nationally and internationally. Of particular note in this context, has been the success of the program in achieving a measure of gender and cultural diversity in the compliment of chair-holders which well exceeds that of the CRC program at York, and indeed in chair programs at many other universities.

At the local level, receiving a YRC was a 'wake-up call' for a small Faculty, sending the signal that the Faculty is strongly committed to research, and has active and productive research faculty. This was seen as recognition and increased visibility for the Faculty.

Nationally and internationally, the YRC empowered chair-holders to reach out, to secure new and stronger collaborations, and to be leaders in these collaborations. Stronger and new collaborations were reported with researchers, universities, research institutions, non-governmental agencies, and

governments. This was attributed to the prestige of the YRC program and clarity in the titles of the chairs, giving each YRC a strong identity, and recognition by colleagues. YRCs also reported generally higher levels of knowledge sharing outside of the academic world, with more YRCs reporting frequent engagement in these activities than York's CRCs.

The research funds given to YRCs enabled national and international travel, both by the chair-holders and, in particular, by their students, to major conferences, further enhancing York's visibility and involvement. The profile and visibility of the chair, combined with the funding, also supported site visits to strengthen collaboration, as well as the hosting of seminars/conferences and attracting research leaders to York.

The YRCs have also used their funds to support international graduate students, thereby increasing the international composition of their research groups, which, anecdotally, the chairs felt had enhanced the the quality of their students. Moreover, increasing the internationalization of York's student body adds to York's international visibility and reputation in general.

4. Conclusion and Recommendations

Based on the positive internal and external impacts of the YRC program as presented in the previous sections of the report, the review panel fully supports continuation of the program; furthermore, the panel makes the following recommendations for the consideration of the Vice-President, Research and the University senior administration for enhancing the program.

- i. The YRC program has been successful in intensifying the research programs of chair-holders, but its contribution to strengthening research leadership capacity and outcomes more broadly at departmental, Faculty and university levels is uneven and unclear, the panel therefore recommends that the Program Guidelines and selection criteria be made more explicit regarding the strategic objectives and expected performance outcomes in this regard.
- ii. The scale of the YRC program was designed to parallel the CRC program. The latter has grown in recent years and the panel recommends that the number of centrally supported YRC chairs also be increased from 20 to 35 chairs which it feels can be achieved without diluting the quality or prestige of the program, and at the same time should be financially sustainable given the modest incremental cost involved.
- iii. The program was structured to have an equal number of Tier 1 and Tier 2 chairs. The panel recommends that, assuming an increase in the total number of chairs, consideration be given to: a differential increase in the number of Tier 2 chairs; and structuring the program to enhance accessibility for the full spectrum of early and mid-career researchers.
- iv. The program has been notably successful in achieving gender and cultural diversity in the compliment of chair-holders, and exceeds the representation for the CRC program.

- The panel recommends that the program guidelines and nomination process further strengthen efforts to increase the representation of these groups.
- v. While the YRC program is recognized and valued internally and externally, the level of prestige and degree of visibility and knowledge about the YRC program and the YRCs could be improved. The panel recommends taking measures to increase the visibility of the YRC program, aiming to bring the level of prestige closer to that of the CRCs, and to improve communications. Examples include ensuring timely local and national announcements of new YRC appointments, developing opportunities to celebrate and educate regarding the YRC program and YRCs' research, and a YRC lapel pin for all YRC chairs. YRCs' annual reports should be distributed to Deans and Associate Deans Research, and there should be meaningful regular review and feedback to the YRCs on their progress relative to the YRC program goals. Support for outreach and media interaction by the media office is very good, however the degree of support to the YRCs is uneven. The panel recommends strengthening the media support for YRCs.
- vi. YRCs have had limited interaction among themselves and with other research chairs and fellow researchers across campus. The panel recommends implementing opportunities for interaction and networking, and building a "YRC community". Examples include implementing YRC research day(s), series of seminars given by YRCs. These examples can also be opened up externally, including to alumni, to improve visibility and prestige (see recommendation b.(i) above).
- vii. There is strong support for the YRC program from the VPRI, the Provost, the Senior Executive team, the Deans and other leaders at York. Notwithstanding some concern about the lack of salary stipend for YRCs (in contrast to the CRCs), the level of financial support for each YRC is reasonable and the panel does not recommend any changes. The panel recommends that consideration be given to according YRCs priority for research space, access to CFI funding opportunities, and dedicated research administrative support, to enhance the YRC program.
- viii. Teaching release for YRCs is an important element of support, however its application and funding is uneven, and variable in transparency. The panel recommends careful consideration of the structure of teaching release for YRCs, including consideration of the 1.0 course minimum at York and its application to all YRC chairs.
- ix. In order to support and sustain the YRC program, external support should be strengthened. The panel recommends developing an Advancement plan for the YRC program, which would include, for example, future YRC support from alumni, donors, and foundations. This Advancement Plan requires stronger collaboration between the VP Advancement, the Advancement team, the Deans, and the YRCs. The panel recommends consideration of fund-raising for endowment(s) or directed funding for individual YRCs and for the YRC program itself.