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Implementation of a clinician and academic researcher-led funding program to stimulate research in a Regional Medical Campus

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Abstract

INTRODUCTION: Fostering locally initiated clinical research, with physicians as lead investigators, can be challenging for a Regional Medical Campus (RMC) or any site involved in distributed medical education (DME). Exposing students to research and to clinically relevant research is an important accreditation criterion. We discuss an initiative implemented to stimulate the development of clinical research activities within the main hospital affiliated with our RMC.
METHODS: The Duo research grant program was launched in March 2018. It offers research grants worth up to CAN$25 000. Proposals have to be submitted by 2 co-principal investigators, including one academic researcher and one clinician involved in medical education through our RMC. Projects need to address a clinical practice or medical education issue.
RESULTS: Twelve projects were submitted in the first 2 funding rounds of the Duo research grant program. Eight of the 12 proposals received funding (67% success rate) and have already directly exposed medical students and residents to clinical research. They have also led to presentations at conferences and submission of external grant proposals.
CONCLUSIONS: With a cost of CAN$100 000 per year, the Duo research grant program appears to be an effective strategy for fostering meaningful collaborations between clinicians and researchers, for exposing our medical students to more clinical research, and for favoring the development of our clinicians' academic profiles.

INTRODUCTION

Among criteria for accreditation of medical programs is the requirement that they provide opportunities for medical student participation in research.[1] Distributed Medical Education (DME) sites, especially Regional Medical Campuses (RMC), are commonly established in regions where there are little research activities. When RMC set up adjacent to other universities, the research activities carried out in these institutions may not originally include medical research.[2] It can therefore be challenging for DME sites that are based away from large-scale, research-intensive academic health centers to offer exposure to clinical research.[3]

Nevertheless, recent paradigm shifts are calling for more clinical research involving physicians and patients.[4] These include the desire to move from experience-based to evidence-based practice in medicine[5] and the adoption of a national Strategy for Patient-Oriented Research by the Canadian Institutes of Health Research (CIHR).[6] Researchers are therefore more incentivized to move away from purely fundamental work and to engage in research that has a greater potential to impact patient care. Another inducement for collaborations between clinicians and researchers is the demonstration that combining these 2 professions in the development of research projects leads to sustainable alliances and produces impactful results.[7]

Aiming to expose students from our RMC to more clinical research, we developed a research funding program designed to foster clinician-researcher collaborations. Funding for this program came from an exhaustive revision of our existing RMC's budget to align with the identified priority to develop research capacity. The main goal of the research grant program was to encourage meaningful collaborations between clinicians and researchers. Other research grant program objectives included favoring the development of our clinicians' academic and research profiles and creating opportunities to expose our students to research during their clinical rotations in our affiliated hospitals.

METHODS

Setting:
Our RMC, the Centre de formation médicale du Nouveau-Brunswick (CFMNB), is located in Moncton, New Brunswick. Established in 2006, the CFMNB is the product of a partnership between the Université de Sherbrooke's Faculty of Medicine, the Université de Moncton, and the Government of New Brunswick. Through this consortium of partners, the Université de Sherbrooke offers its entire 4-year medical program to 24 francophone students from New Brunswick per year in their home province. The Université de Moncton provides the infrastructure required to host the academic

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program and the Government of New Brunswick funds most of the initiative. The main hospital affiliated with our RMC is the Dr. Georges-L.-Dumont University Hospital Centre in which 202 of the 236 (86%) physicians are involved in the training of medical students or residents.

The new research grant program:

We launched the Duo research grant program in March 2018. The Duo program encourages collaborations between clinicians and academic researchers by offering up to CAN$25 000 per project over 2 years. Eligibility criteria are twofold: 1) co-principal investigators must include at least one local academic researcher and one clinician involved in teaching or clinical supervision of medical students or residents in our university health center (hence the name "Duo"), and 2) proposals must focus on a clinical practice or medical education issue or need.

The first eligibility criterion positions the academic researcher and the clinician on equal footing in terms of project leadership. This criterion favors the development of projects that are relevant from a clinical perspective and for which there is engagement of a scientist with the necessary methodological training and time commitment (i.e., "conducting research" is part of their job description) to pursue the research project. The requirement that projects be co-led also has the effect of genuinely engaging clinicians in the research process, thereby contributing to the enhancement of their scholarly abilities. The funding program does not allow financially supporting investigators.

The threshold of CAN$25 000 per grant was established following consultations with researchers, clinicians, academic leaders, and research funding organizations. A consensus formed around this benchmark amount for several reasons: 1) it was considered adequate to attract academic researchers, 2) it represented a noteworthy grant to document in a CV for clinicians aiming to build their academic profiles, 3) it represented an amount sufficient to support several types of research projects, and 4) it could be perceived as enough for external granting agencies to consider funding follow-up studies building on Duo-supported projects.

Annually, the first call for proposals for the Duo research grant program occurs in the fall and is followed by a series of reminders with a submission deadline of late February. Along with a simple registration form, applicants need to submit their CVs, a 2-page description of their project, up to 2 pages describing the roles of each team member, a budget, justifications for the budget, and a work plan with timelines. Components of this application package are meant to be sufficient to enable a clear and concise description of the research plan without requiring the investment of an inordinate amount of time and energy to produce. The format and length of the application package also allows for an effective and efficient review process.

An external evaluation committee reviews projects submitted within the 2 weeks following the deadline date, such that funds are transferred to successful research teams by the end of March. The rapid peer-review process contributes to maintaining the momentum built at the stage of preparing the grant proposal. Still, the review process employs a rigorous approach, involving at least 3 reviewers per grant and a discussion at the level of review committee, akin to the process employed by the CIHR.[8] The peer review committee is made of individuals with experience in clinical research, which are recommended by the research support offices of the CFMNB, the Université de Moncton and the Dr. Georges-L.-Dumont University Hospital Centre. As much as possible, we aim for the committee to be representative of all pillars of research recognised by CIHR. The evaluation of proposals takes into account 4 main criteria: scientific merit (i.e. empirical support for objectives, and appropriateness of methods), feasibility (i.e. realistic timeline, sufficient infrastructure, and adequate funding), expertise (i.e. team has necessary expertise and experience, roles and responsibilities of team members are clearly established, relevant and meaningful), and impact (i.e. potential to impact the system or patients, likelihood to be published and to lead to external funding).

RESULTS

We have now completed 2 rounds of Duo research grant competitions. The clinical and research communities responded by submitting 6 grant proposals in each of the 2 funding rounds. Funds were available to support 4 projects per competition, for a success rate of 67%. The projects supported are in the areas of oncology (n=3), neurology (n=2), cardiovascular health, inter-professional education within primary healthcare, and nephrology. For 7 of the 8 projects funded, this success represented the clinicians' first peer-reviewed research grant as a principal investigator.

All successful projects received CAN$25 000 over 2 years. The funds have been used to support research activities including the collection of data and acquisition of samples. Several research assistants, graduate students, and postdoctoral fellows have received salary funding through the Duo research grant program. An impact of the first year of this funding program has been that 2 postdoctoral fellows, 4 graduate students, 8 residents in family medicine, 3 students in medicine, and 5 students in other health sciences programs were directly exposed to research activities. Furthermore, the first year of funding has already led to 5 conference presentations and at least 2 external grant submissions.

DISCUSSION

With an investment of CAN$100 000 per year, we were able to establish a research grant program favoring the development of research activities within our university health center. At this current funding level, the program is supporting the ongoing operation of at least 8 academic research projects within the university health center at any given time. This represents a substantial uptake of scholarly research within this center. In time, we hope to increase our capacity to fund more projects. This will be facilitated by the contribution of our partners, including the Vitalité Health Network (our regional health authority), which has recognized the benefit of the Duo research grant program and invested CAN$50 000 in it for the next funding cycle. Discussions are also ongoing with the university hospital center's foundation, our partner universities and the hospital's council of physicians to identify how they could contribute to it.

The increase in research activities within our university health center provides more opportunities for exposing our medical students to research. It also contributes to building both the academic and research profiles of physicians in our RMC and in our center. The research that we support will also eventually lead to improvements in health care and in the overall health of our patients and populations.

We hope that this program marks the beginning of more partnerships between academic and clinical researchers. So far, implementation of the Duo research grant program appears to be an effective strategy for fostering meaningful collaborations between clinicians and researchers, for better exposing our medical students to clinical research, and for favoring the development of our clinicians' academic profiles.

References

1. Association of American Medical Colleges and the American Medical, Association. Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the MD Degree. *Liaison Comm Med Educ*. 2017:35.
2. Toomey P, Lovato CY, Hanlon N, Poole G, Bates J. Impact of a regional distributed medical education program on an underserved community: Perceptions of community leaders. *Acad Med*. 2013;88(6):811-818. doi:10.1097/ACM.0b013e318290f9c7
3. Topps M, Strasser R. When a community hospital becomes an academic health centre. *Can J Rural Med*. 2010;15(1):19-26.
4. Castonguay LG, Youn SJ, Xiao H, Muran JC, Barber JP. Building clinicians-researchers partnerships: Lessons from diverse natural settings and practice-oriented initiatives. *Psychother Res*. 2015;25(1):166-184. doi:10.1080/10503307.2014.973923
5. Hummers-Pradier E, Scheidt-Nave C, Martin H, Heinemann S, Kochen MM, Himmel W. Simply no time? Barriers to GPs' participation in primary health care research. *Fam Pract*. 2008;25(2):105-112. doi:10.1093/fampra/cmn015
6. Strategy for Patient-Oriented Research. Canadian Institutes of Health Research. http://www.cihr-irsc.gc.ca/e/41204.html. Published 2019. Accessed July 15, 2019.
7. Blevins D, Farmer MS, Edlund C, Sullivan G, Kirchner JAE. Collaborative research between clinicians and researchers: A multiple case study of implementation. *Implement Sci*. 2010;5(1):1-9. doi:10.1186/1748-5908-5-76
8. Peer review: Policies and procedures. Canadian Institutes of Health Research. http://www.cihr-irsc.gc.ca/e/39414.html. Published 2017. Accessed July 4, 2019.