
TRAINEE SECTION

Xin Wang, BHSc

MD/PhD program, Faculty of Medicine, University of Toronto, Toronto, ON
and Clinician Investigator Trainee Association of Canada

Here to stay: Clinician investigator training in a changing environment

Commentary on: Strength in Numbers: Growth of Canadian Clinician Investigator Training in the 21st Century

Abstract

Clinician investigators (CI) are a growing sector within the research community. Given the emphasis on patient-oriented research, the need for more physicians with the aptitude to conduct translational research has never been greater. Despite this, there is limited literature on the current Canadian CI training programs. The Clinician Investigator Trainee Association of Canada (CITAC) has a significant interest in ensuring the training of clinician investigators, at both the undergraduate and residency levels, remains adept at meeting the challenges of today's health care system. In the August issue of *Clinical Investigative Medicine*, Appleton et al. published the first document reporting on the data collected by CITAC on the basic demographics of Canadian CI trainees [3]. The authors captured census data from each CI training program. This collaborative and national effort is a first and crucial step in understanding the strengths and potential pitfalls of Canadian CI training programs. The data presented will be used as a reference resource to improve training programs and facilitate future research.

Clin Invest Med 2013; 36 (5): E253-E254.



Correspondence to:

Xin Wang, BHSc
Faculty of Medicine, University of Toronto,
1 King's College Circle, Toronto, ON M5S 1A8
Email: kevinxin.wang@mail.utoronto.ca

The growth of CI training programs over the last few decades have spurred interest in studying the effectiveness of training pedagogy. Despite this, Canadian data has largely been lacking. In order to ensure the needs of CI trainees are properly addressed, CITAC has incorporated in its mandate the long-term study of CI training programs and trainee experiences. CITAC is a not-for-profit organization established by CI trainees to strengthen the training programs across Canada. Part of the group's mission is to address the dearth of literature on CI trainees through the collection of various data including demographics, funding and satisfaction with training. The ultimate goal of this research is to inform policy makers and stakeholders on how to optimize CI training programs to ensure the longevity and success of trainees.

The overwhelming trend observed by the CITAC study is the tremendous growth in enrollment over the past decade. Currently, more than 450 medical trainees are enrolled in some form of graduate training at the master or doctoral level during the course of their medical training. This level of expansion bodes well for the future of the Canadian health care system, but also places tremendous strain on current funding paradigms [4]. Many MD/PhD programs are partially funded through a CIHR grant that supports up to \$22,000 per student per year over a six year period. Students not supported by this program often receive external funding outside of this scope; however, data on this is currently lacking. The funding by CIHR and national agencies, in recognizing and supporting CI trainees, has greatly contributed to the success of the MD/PhD program across the nation. In order to support the continued growth of clinician investigators, national funding agencies will have to ensure that a long and sustained monetary commitment is in place. As demonstrated in Figure 1 of the article, the level of funding allotted to the MD/PhD program grants has plateaued in recent years. Despite this, enrollment has continued to increase, raising questions of sustainability; however, whether this trend means students are being underfunded is currently unknown and warrants closer study. A re-

cent survey conducted by CITAC looking at CI satisfaction indicated that funding is a significant contribution to training satisfaction (CITAC, manuscript in preparation) and issues of funding have likely contributed to the 5.5% national attrition rate of CI trainees.

Attrition is perhaps one of the most pressing concerns facing CI training programs. Studies looking at student satisfaction and long term retention are largely absent, especially in Canada. CITAC, therefore, made CI data collection one of its mandates and this will hopefully provide insight into how best to properly support trainees. From preliminary unpublished data it appears that beyond funding, mentorship is forefront in contributing to trainee satisfaction. This calls for increased programing and national networking opportunities to ensure that proper mentorship, beyond that of trainee-supervisor, is in place.

It is safe to assume that CI training programs are here to stay and will continue to evolve rapidly. These programs will continue to require assessment and development in order to address student attrition and satisfaction. Continued study of this unique population will answer many of these unknowns. The future of CI trainees still remains uncertain, but with the proper support, it can be a bright one.

References

1. Lander, B., Hanley, G.E., Atkinson-Grosjean, J. (2010) Clinician-Scientists in Canada: Barriers to Career Entry and Progress. *PLoS ONE* 5(10): e13168.
2. Silverman, M., McGugan, S. (1997) MD/PhD programs--the Canadian experience. *Clinical and Investigative Medicine*. 20(4), 255–6.
3. Appleton, C.T., Belrose J., Ward, M.R., Young, F.B. (2013) Canadian clinician investigator training in the 21st century. *Clinical and Investigative Medicine* 36(4): e163.
4. Khadaroo, R. G., Rotstein, O. D. (2002). Are clinician-scientists an endangered species? Barriers to clinician-scientist training. *Clinical and Investigative Medicine* 25(6), 260–1.