The Canadian Chair of Chiropractic Research

The first year experience



Dr. Greg Kawchuk, DC, PhD Canada's 1st Chiropractic Research Chair University of Calgary

Chiropractic research in Canada has been comprised historically of a patchwork of individuals situated in extremely diverse circumstances: the research faculty of two Canadian chiropractic colleges, existing university faculty who contribute time away from their primary research interests, students at these institutions and independent researchers in private practice. While this diverse group has experienced many research successes, at no time has this collective included full-time university investigation – the basic unit of health care research. As the majority of successful health care research is funded and performed by full-time university investigation, its inclusion within the Canadian chiropractic research environment can only be considered as beneficial. Unfortunately, this void is not filled easily. The Canadian Institutes of Health Research (CIHR) predict a 100,000 person shortfall of health care researchers by 2010. Combined with the debt incurred by chiropractic graduates, the recruitment and retention of chiropractors to fill these positions is a daunting task.

Fortunately, filling this void has been a priority for the Canadian Chiropractic Association (CCA). The CCA has had the foresight to establish programs to assist chiropractors in attaining advanced academic credentialing. In the next step of this program, the CCA and CIHR, for the first time in Canadian history, have created a university position dedicated to full-time investigation of chiropractic issues: the Chair for Chiropractic Research at the University of Calgary.

What is the Chair and who gets to sit in it?

The Chair itself was created through an innovative program established by the Canadian Institutes of Health (CIHR). This program, called the Health Research Partnership Fund, was established to assist a variety of health care organizations in developing the critical mass of researchers needed to improve the health of Canadians.

Recognizing the potential of this program, Dr. Allan Gotlib became involved on behalf of the CCA with the intent to create a five year, salaried research position called the Canadian Chair of Chiropractic Research. In 1999, the CCA was approved as a participant in the Health Research Partnership Fund and a competitive application process was initiated to staff the Chair. This process was open to all applicants having a Ph.D. and a letter of support from a Canadian university in the form of a promised assistant professorship. In addition, each applicant was required to submit a 5-year research grant and have it pass successfully through the CIHR peer-review process.

After a great deal of work and support by countless committees, individuals and applicants, the Chair began its inaugural term at the University of Calgary on April 1, 2001. The Chair is presently held by myself, Greg Kawchuk, as an Assistant Professor in the Faculty of Kinesiology and Adjunct Professor in the Faculty of Medicine, Department of Cell Biology and Anatomy.

What does the Chair do?

One of the most common questions I am asked by members of the profession is "what does the Chair do"? Many assume that the Chair functions as a chairman who presides over the Canadian research effort. This is not the case. The chief duty of the Chair is to perform high-quality research that is significant to the chiropractic profession. The Chair has no administrative duties relating to the management of chiropractic research in Canada. The designation of "Chair" was given to convey the significance of the position in the history of Canadian chiropractic research.

More specifically, the Chair must spend 75% of their time on chiropractic research alone – a CIHR regulation. The remaining 25% is divided equally between teaching (undergraduate anatomy for 225 students), committee work and clinical duties at University Health Services – a multidisciplinary clinic located in the University's student centre.

Why does the profession need a Chair?

The majority of health care research is performed in university settings by investigators who are focused on one specific topic area. One only has to think of the number of individuals fitting this description who staff universities and research institutes to appreciate that something must be advantageous to performing research in this manner. There certainly is, and with the creation of the Chair, these advantages benefit the chiropractic profession in Canada directly.

Full-time Research – All chiropractic, All the time

Of all the advantages that the Chair conveys, the most significant is that 75% of the Chair's research activities are related directly to the chiropractic profession. While this percentage may not appear to be outwardly astonishing, it is an enviable allotment of "protected" research time. As is the case in most educational institutions, investigators are being asked to increase their teaching and administrative loads. As a result, the percentage of their time devoted to research is lower than most would prefer. In addition, if the investigator's primary focus is unrelated to chiropractic, the percentage of their research time decreases even further. By designating 75% of the Chair's time be spent on issues germane to chiropractic, the impact on the profession is significant – the Chair does not have to engage in

other activities directed outside the profession that would diminish his/her research output.

At the present time, there are four major lines of chiropractic investigation sustained by the Chair. These include:

- the development of clinical techniques to measure spinal stiffness,
- the identification of acute versus chronic intervertebral disc pathologies,
- characterization of the chiropractic adjustment and
- the development of an animal model of vertebral artery injury.

These with be outlined in greater detail in future articles in the JCCA.

Funding from outside the profession

The funds provided by the CIHR-CCA to the Chair are for salary only – none of these funds are used for conducting research. Therefore, to initiate and sustain any research endeavor, operating funds must be found to buy equipment and services. Therefore, a considerable portion of time must be spent writing grants to obtain the funds necessary to conduct research.

By having the Chair's research efforts devoted solely to chiropractic issues, the Chair does not have to apportion time to other lines of investigation. This includes associated research activities such as grant writing and student training. This is a significant benefit for two reasons. First, any operating grants that are written and ultimately awarded, fund chiropractic research directly – potential funding efforts are not diluted by having to write grants in support of non-chiropractic lines of research. Second, because the Chair is affiliated with a university, grant applications can be made to national granting agencies.

The significance of this situation cannot be understated. "Medical" research is not funded through the personal donations of the medical profession, rather, it is funded publicly through tax dollars which are distributed by scientific agencies such as CIHR. Now for the first time, chiropractic can utilize this mechanism and in fact, has done so successfully. In the first year of appointment, the Chair has competed for and received operating and equipment grants from the Natural Sciences and Engineering Research Council of Canada (NSERC). The result of obtaining such a grant is very tangible – more operating monies are now

provided to the Chair via federal funds than by donations and/or fund raising by the profession. Federal funds from federal agencies leverage the investment made by the profession by decreasing the percentage of funds that are obtained directly from the profession itself. The result is that more research is done for less of the profession's money. While a tremendous advance, such a development is humbled by the sheer magnitude of entire groups, departments and institutions housed by individuals funded in this manner.

The third benefit of having the Chair's entire grant writing efforts directed to chiropractic issues is that operating grants obtained from large agencies permit funding requests for graduate student training. This opportunity is of vital importance as we are far from having the personnel capacity required to address all the issues that our profession has a responsibility to explore. Given the time and expense of a chiropractic education, the additional time and expense required to obtain a Ph.D. as well as the limited number of job opportunities for researchers, very few new chiropractic graduates plan on becoming career scientists. For the few people who do embark down this road, they are often submerged within an academic culture that does not acknowledge their unique clinical background. As a result, there are few opportunities for chiropractors to obtain traditional graduate degrees within environments that exploit their expertise. By having the entirety of the Chair's research and grant writing activities directed to chiropractic issues, successful grant applications can include financial support for graduate students who will train in areas related to the chiropractic profession. The potential for student training is not reduced by having to assign funded graduate students to other lines of research. The result will be an increasing number of chiropractic researchers with Master's or Doctorate degrees who are funded from outside the profession by public money. This mechanism of increasing the capacity of researchers within our profession is simply unparalleled and as of today, is a reality. As a result of the NSERC funding obtained by the Chair, a recent graduate of a chiropractic college will be funded for three years of PhD training at no cost to the profession. This student will also benefit directly from training in an environment established to support chiropractic research and clinical activities.

The University Environment

The university setting itself is perhaps the greatest benefit of the Chair. Not only does conducting research in a university setting provide an opportunity for training future researchers, it provides a culture that incubates exploration and discovery. This environment allows investigation of a specific question in exquisite detail while creating exposure to a broader range of ideas and viewpoints – a critical environment for ensuring innovation and quality. The shear number of individuals and resources accessible at the University of Calgary is mind-boggling. There are over 4,300 academic and support staff in 16 faculties, 53 departments and 30 research institutes and centres of excellence. With direct relevance to the Chair, these include the Faculties of Kinesiology, Medicine, Engineering, the McCaig Centre for Joint Injury and Arthritis Research and the Foothills Hospital. The astonishing collection of stateof-the-art equipment housed in these facilities is second only to the quality and breadth the people who staff these facilities. These amassed resources act to bring individual researchers together, generating unique collaborations that result in novel ideas and perspectives that could never be achieved individually. It is these collaborations that are perhaps the greatest attribute of the university environment.

Summary

In the last decade, chiropractic has enjoyed unprecedented growth. This progress has been the result of hard work and a shift toward a politically correct society – we are less often excluded simply because of who we are. As a result, chiropractors now enjoy an unprecedented range of clinical and administrative acceptance and access. For better and worse, our increasing inclusion into society's institutions has resulted in increased scrutiny of our clinical theories and practices. We are now in the public eye more than ever and its gaze is critical. Our profession's success in responding to present and future challenges will be dependant on our research production for ...

Research allows the profession to define, rather than argue, its position.

As the Chair, I look forward with great anticipation to contributing to the Canadian chiropractic research effort and would like to take this opportunity to thank all those who have made this journey possible. In particular, I would like to thank Dr. Allan Gotlib for his tireless work in advancing chiropractic research. More than any other individual, researcher or administrator, Dr. Gotlib has shaped the future of chiropractic research in Canada by realizing

the potential for partnering with federal agencies. His work in securing funding for the advanced research training of many chiropractors has provided the currency on which profession will bank its future. For, that the profession owes a great debt of thanks to Dr. Allan Gotlib.

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