



**W. Mark Erwin, BA, DC**

Clinician, Interdisciplinary Clinic, Toronto  
PhD candidate, Institute of Medical Science,  
University of Toronto  
Research fellow, CMCC

While visiting in Montreal recently, I happened upon a copy of the Montreal Gazette (Sunday, March 5, 2000). On the “Interludes” section (C5) there was a piece titled “You gotta hand it to Ignaz”. To paraphrase, the piece concerns the famous discovery by Ignaz Semmelweis MD in the mid 1800’s who found that washing one’s hands saved lives when delivering babies. At that time, many women were dying of “childbed fever”, a serious condi-

tion of which little was known apart from a suspected infectious “vapour” that may have been present in the air. As it happened, physicians at the time made a habit of coming straight from the autopsy room to the delivery theatre. Semmelweis, being a dedicated and insightful physician persevered in spite of the view at the time that he was some sort of a hand washing “martyr”. In fact, due to Semmelweis’ insistence on hand washing before delivering women the mortality rate plummeted in one year from a high of 30% to a much more reasonable 3%; a miraculous change for that or any time. Unfortunately for Semmelweis, the medical establishment didn’t like his revolutionary ideas and thought him a bit of a zealot. His life was made miserable in his native Vienna and he fled to Hungary. The year he left Vienna his practices were discontinued and the mortality rates sky rocketed again. Not surprisingly shortly upon his move to Hungary the mortality rate decreased precipitously.

In many ways it could be argued that Semmelweis was responsible for his own misfortunes because he did not publish his findings or the details of his techniques. Therefore, the critics were never able to make an informed decision of his protocols or to scientifically investigate his ideas. All that was ever reported by Semmelweis was his (apparently) brow-beating, condescending rhetoric directed to his critics. Those that attempted to follow his lead largely failed because they were not informed of the thoroughness of the hand washing and dis-infecting nature of the procedure (he even soaked his hands in a chlorine solution).

Semmelweis ultimately failed to be credited with the stunning medical breakthrough for which he was so deserved. He was admitted to an asylum probably suffering from depression due to the rejection of what he knew was a breakthrough and was dead within two weeks (clod minded attendants are suspected of being involved with a beating). The entire episode of Semmelweis’ frustration and castigation on the part of his medical colleagues was

largely due to poor communication on his part. Fortunately, vindication for Semmelweis' theories came along when a young investigator stood up at a meeting and drew a picture of the *Streptococcus* bacterium: thank you Dr. Pasteur.

What does the above have to do with Chiropractic? Consider the value of empirical observation and case study, the formulation of experimental theory and rigorous investigation of the theory followed by publication and re-production of results with subsequent investigation. Consider the value of good communication skills and constructive dialogue with ones' peers, both intra and inter-professionally. A (relatively) small number of Chiropractic and other researchers has provided the scientific basis for the practice of spinal manipulation as it stands today. Various co-ventures such as the affiliation of CMCC with the Saskatoon setting, CMCC's affiliate clinics and the progress toward university affiliation (hopefully soon with York University), are a testament to what can happen when science and the pursuit of truth and betterment of the patient are the first concern: everybody wins.

We must ask ourselves which path would seem the wiser, one according to the Semmelweis model of stubborn, self absorbed, self righteous, pontificating (of the value of the adjustment to cure all manner of ills), or the rigorous and reasonable investigation of the essential essence of the effect(s) of spinal manipulation. There are a multitude of letters, e-mails and conferences that continue to be offered these days in large part by private chiropractic organizations that sound suspiciously like the Semmelweis' and the anti-change medical establishment of the 1800's. The "I'm right, the world's wrong" approach didn't work then and it won't work now. Justification for lengthy treatment schedules and the establishment of "lifetime patients" is clearly suspect as is the notion of

disc "regeneration" by spinal manipulation. Nonetheless some of these private agencies continue to suggest that discs can be magically regenerated by cavitating a facet joint and that everyone should have the once a month adjustment. Perhaps what really happens in cases like this is the regeneration of a full appointment book and healthy billings. I don't remember any instruction at CMCC about such a phenomenon and often wonder "where do these things come from?"

I think that we need to look to our friend Louis Pasteur to see the elegance of a credible scientific explanation and it's powerful effect. Pasteur bothered to publish and scientifically verify the mechanism of a case by case basis of observation, thus forever changing the history of medicine. I wonder how much further ahead our profession would be if more clinicians followed Pasteur's lead and started by publishing the simple yet elegant case study. Empirically based studies form the foundation for more sophisticated inquiry and robust investigation and are the hallmark of health science. It could be argued that observing, reporting and rigorously investigating clinical encounters in the search for the underlying mechanism is what defines the integrity of a profession.

We need to be less apologetic and defensive and more courageous. We must be strong enough to stand by clinical experience and in an unbiased and scientific manner, examine the mechanisms/physiology of these encounters, report them ... and let the chips fall where they may. I would venture that for non-surgical, mechanical low back pain no one is better trained to treat the individual than a well trained, experienced chiropractor. Perhaps the evidence will show the same for neck pain and some kinds of headache, there seems to be a trend in that direction. The "head in the sand" "us vs them" approach is flawed, indefensible and no matter how "independent" one might be, in the end it's measurable results that count.

## Canadian Chiropractic Research Foundation

The vision of the CCRF is to promote research into studies relative to the practice of chiropractic and to assist in the development of chiropractic researchers and the establishment of sustainable quality chiropractic institutional research programs. Integrative health research will be focused on improving both health and quality of life of Canadians that empowers Canadians to be partners in their health.