Promoting Subluxation Research

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In last month's *The Australian Chiropractor* the Australian Spinal Research Foundation's President, Dr David Cahill, addressed the question "Why Vertebral Subluxation?" In the article he explained why Spinal Research has decided to focus on funding research that relates to vertebral subluxation. David's central theme was that vertebral subluxation was at the core of what chiropractor's have postulated both clinically and philosophically so it made sense to address this uniquely chiropractic construct through our research.

So what is Spinal Research doing to encourage and support this type of research? One of the core strategies is our procedures for assessing grant applications. These procedures were changed substantially in 2001. They include changing the procedures of assessment to include a panel of practicing chiropractors and expressly including terms that relate to subluxation and wellness in the priorities that grant applicants are asked to address.

So are these changes working? Dr Cahill and I have written a paper that has examined the effect of these changes on the type of research funded by Spinal Research prior to 2001 and since 2001. The paper has been accepted for presentation at the 2008 International Research and Philosophy Symposium on the campus of Sherman College in October. The exciting news is that it appears that the changes in procedure may greatly increase the amount of research funded in these areas.

Adrian Wenban found, "only 6.3% of the original research published in 7 leading chiropractic scientific journals during the period 1990-99 included the term subluxation in the title, abstract or index terms" (1).

We are hoping that the significant changes that Spinal Research has made will lead to these figures growing over the years to come.

The studies that were funded in last year's round are a tremendous step toward that goal.

1. Dr Bernadette Murphy is the chief investigator in the project 'The Effect of Lumbopelvic Adjustments on the Function of the Pelvic Floor Muscles'. This study will investigate whether chiropractic care might help the delivery process by improving the function of the pelvic floor muscles. Pelvic floor muscles are fundamental in the birth process, mainly during the pushing stage of labour. A difficult vaginal delivery can lead to pelvic floor damage, resulting in incontinence and pelvic organ prolapse. Therefore if spinal adjustments are able to improve pelvic floor function, it could have important benefits for both delivery and pelvic floor health."

Dr Heidi Haavik Taylor has been funded to undertake the study 'The Effect of Spinal Adjustments on the Accuracy of Joint Position Sense'. Dr Taylor's PhD research indicates that when the spine does not work properly, it leads to alterations in the way the brain processes information from the upper limb. She therefore believes that when our spine is not functioning properly our brain can no longer accurately compute information from our joints and muscles, thus potentially leading to increased accidents. She will be comparing research participants' judgment of joint position with the actual joint angle before and after adjusting the spine. She can compare judgment of joint position in groups of people that have good spinal function with a group that does not have good spinal function, i.e. those with vertebral subluxations.

Associate Professor Philip Bolton has done some amazing basic science investigations relating to vertebral subluxation. Spinal Research has funded the study, of which he is the chief investigator, entitled 'A Study of the effects of a Putative Vertebral Subluxation and Spinal Cord Compression on Somato-autonomic Reflexes'. The investigators describe their study and its potential as follows: "We have recently measured the normal pressure environment of the spinal cord in the anaesthetised rat and revealed the ranges within which pressure oscillates and how pressure around the spinal cord changes with vertebral movement. Having now defined the normal pressure environment of the spinal cord, this study proceeds to artificially raise that pressure incrementally to identify the threshold at which spinal cord function is compromised. This study will also investigate whether a model of upper cervical vertebral subluxation induces changes in the transmission of nerve impulses between the brain and peripheral nerves and if these changes are consistent with those induced by mild, transient compression of the spinal cord.

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Furthermore, this study will determine whether changes in the transmission of nerve impulses can be reversed by the reduction of the vertebral subluxation or release of the compression, and whether all of this occurs without structural changes to the spinal cord."

Over the last few months Spinal Research Clinical Advisory Panel and Research Committee have been assessing the applications for this years round of funding and we are looking forward to announcing funding for some more exciting studies.

1. Wenban AB. Subluxation research: a survey of peer-reviewed chiropractic scientific journals. *Chiropr J Australia*. 2003; 33:122–30.

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