

# More Funds Committed to Chiropractic Research

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Happy New Year everyone!

What a huge year it's been, as you will have noted in the Australian Spinal Research Foundation's Annual Report 2007-2008. *(If you haven't received a copy of this, and would like one, please don't hesitate to contact Rachel on 07 38084098).*

Our November board meeting saw two new members welcomed to the board, Drs Rosemary Keating and James Carter (read more about them and what they bring to *Spinal Research* in coming articles).

In 2008, the Foundation received eleven 'expressions of interest' to submit grant applications. These were reviewed by the Clinical Advisory Panel and the Research Committee. Determinations were made based upon the degree of alliance with the Foundation's mission and stated priorities for research, and the apparent likelihood of a full application achieving high scientific merit. Six of the EOI applicants were subsequently invited to submit full grant applications.

These applications then underwent review by both the fore mentioned panels and external reviewers. Of the six, we are delighted to announce that the following three applications were approved for funding. In total, \$105,051.13 of Foundations funds were committed to the following research.

**Dr Barbara Polus BAppSc(Chiro), MSc, PhD (RMIT Division of Chiropractic)**  
***Project title: Neck muscle thixotropic behavior exploitation.***

The objective of this research project is part of an extended research effort to develop and test a model of chiropractic subluxation in humans. Subluxation in this context being defined as 'a mechanical derangement, primarily of contiguous vertebral structures that has a neurological consequence; the generation of a nociceptive signal, and/or a change in the sensory signal (including innocuous signals) that enters the central nervous system (CNS)'.



This definition is seen to be consistent with chiropractor's daily experience. That is, the resolution of mechanical derangement/ altered sensory inflow (chiropractic subluxation) by means of the spinal adjustment, resulting in normalising sensory inflows and, consequently, improving body function.

To test the consequence of a change in the sensory signal generated by local tissues of spinal joints a model of subluxation is proposed where a systematic change in the sensory signal generated from proprioceptors of the dorsal neck muscles alters sensorimotor integration and results in changed motor (both somatic and visceral) responses. This research project is designed as a preliminary test of the model, based on the thixotropic property of muscle.

If this is successful, this protocol (i.e. chiropractic subluxation model) will be utilised to investigate the impact of this change in neck sensory inputs on end-organ function.

**Dr Heidi Taylor BSc, BSc(Chiro), PGDipSci, PhD**  
(New Zealand College of Chiropractic)  
*Project title: The effect of chiropractic care on central somatosensory processing and sensorimotor integration utilizing the dual peripheral nerve stimulation somatosensory evoked potential technique.*

This research aims to investigate whether impaired neural plasticity might occur when areas in the spine are not functioning properly, and whether a period of chiropractic care might in fact be able to reverse these changes. If so, how does chiropractic care achieve these improvements? Ultimately, this type of basic science research may help us to understand how chiropractic is able to improve muscle strength, coordination, posture, and balance by not just working directly on the musculature, but by affecting the output of the brain which controls the muscles.

**Dr Kelly Holt BSc(Phys), BSc(Chiro), PGCertHSc**  
(New Zealand College of Chiropractic)  
*Project Title: The effect of chiropractic care on objective markers of sensorimotor integration and falls in the elderly.*

Falls in the elderly often occur due to decreased nervous system function with advancing age. This study aims to investigate the relationship between chiropractic care and nervous system components that maintain balance. If a relationship is established, then the study outcomes potentially provide a basis for chiropractic care assisting with falls prevention in the elderly.

The Foundation is tremendously excited with the scope and quality of these three projects, and is proud to be funding them. All our members and donors have every right to be proud also. This is **world-leading chiropractic research**. We also gratefully acknowledge all the other researchers that made applications, and encourage them and others to apply for future funding. Research of this nature will help to ultimately manifest the Australian Spinal Research Foundation's vision:

***“We are the research foundation which demonstrates that subluxation-based chiropractic care improves quality of life and human performance.”***

To continue to fund such research, especially in these belt-tightening economic times, we look to our members and those of you who are not yet members or donors for your support, so that further high quality research can be funded that elucidates what we do and the results we see on a daily basis in our practices! Support in any form (attending DG 2009, becoming a member, renewing your lapsed membership, or making a direct donation) is urgently needed.

**Please contact Spinal Research on (07) 3808 4098 and become a part of the vision now!**

***By Dr Lisa Shelton, Governor, Australian Spinal Research Foundation***