

A.T. *Still Research Institute*

"Advancing patient care and wellness through development and support of premier osteopathic research"

July 2007

Still Research Institute

Welcomes

Dr. Gary Fryer

Research Associate Professor!



Education

1985: Diploma of Naturopathy, New South Wales College of Natural Therapies
1990: BAppSc in Osteopathy, Phillip Institute of Technology
2007: Ph.D. in Health Sciences, Victoria University

Gary Fryer, Ph.D., BAppSc(Osteopathy), N.D., and his family, comes to the *Still Research Institute* from Melbourne, Australia where he served as senior lecturer and course coordinator of the Osteopathic Program at Victoria University. Dr. Fryer became interested in complementary medicine and completed a Diploma of Naturopathy in Sydney, Australia. During this time, Dr. Fryer met with several osteopaths who inspired his growing interest in osteopathy. This growing interest led him to enroll in the first government-funded degree course in osteopathy in Melbourne. Dr. Fryer has worked in private practice using osteopathic manipulative therapy for the last 16 years. Over this time, his interest in teaching and research grew. Dr. Fryer has been a staff member at Victoria University for 10 years, where he has taught and actively researched in the field of osteopathic manipulative therapy.

As a new researcher for the *Still Research Institute* and in collaboration with Dr. Michael Bird in Health and Exercise Science at Truman State University, Dr. Fryer will be investigating EMG activity of the deep thoracic paraspinal muscles. The first study uses intramuscular fine-wire electrodes to examine the motor patterns of the deep thoracic paraspinal muscles during a variety of activities and tasks, such as trunk extension, isometric thoracic rotation, and isometric arm flexion. A secondary aim of this study is to determine the task that pro-

duces the maximal voluntary contraction, a necessary component for the analysis of data from the second study. Dr. Fryer's second EMG study will compare the motor activity of normal and abnormal deep paraspinal sites previously identified by palpation. He intends to investigate the etiology of abnormal tissue texture in the medial paraspinal region and then follow this research with an exploration of the clinical significance of these sites.

Dr. Fryer is currently a member of the Scientific Advisory Board for the *International Journal of Osteopathic Medicine* and the *Journal of Bodywork & Movement Therapies*.

As the study's co-investigator, Dr. Michael Bird provides the essential basic science/biomechanical component of this interdisciplinary research. Dr. Bird teaches *Concepts of Biomechanics, Advanced Biomechanical Analyses, Research Methods in Exercise Science, Mountain Biking, and Microcomputer Applications* for Truman State University. His current research at Truman involves how sport performances differ among athletes of varying skill levels and how the results of biomechanical analyses can be applied by the practitioner.

Dr. Bird received his bachelor's degree in Movement and Sport Science and his master's degree in Physical Education (specializing in Biomechanics) from Purdue University, and his doctorate in Exercise Science (also with a specialization in Biomechanics) from the University of North Carolina-Greensboro.



Using Pressure Algotmetry in an Electromyography Study.

"This study will clarify the motor patterns of deep paraspinal muscles, and provide valid methods of EMG normalisation, necessary for comparison of muscle sites."