

## NIH Grant to "Test Hypotheses Central to Chiropractic Theories"

OFFICE OF ALTERNATIVE MEDICINE GRANTS \$500,000 TO JOEL PICKAR, DC, PHD

Editorial Staff

A three-year, \$500,000 R01 grant (investigator initiated) has been awarded to Joel Pickar, DC, PhD, to study the "neurophysiological consequences of lumbar facet movement." The grant is funded through the Institute of Neurological Disease and Stroke of the National Institutes of Health (NIH), with money provided by the Office of Alternative Medicine (OAM).

Dr. Pickar is an assistant professor at the Kansas State University College of Veterinary Medicine in the department of anatomy and physiology. He is a Palmer graduate (1977), and completed a doctorate in physiology at the University of California (Davis).

This latest grant furthers research that Dr. Pickar began at UC Davis in his study of the responses of mechano-sensitive afferents to manipulation. (For a detailed look at that study, please see the interview with Dr. Pickar in the February 26, 1996 issue.) The original research was part of a study funded by the Orthopaedic Research and Education Foundation. The primary investigator on the grant was Rob McLain, MD, an assistant professor at UC Davis.

According to Dr. Pickar:

"This NIH grant will enable me to test hypotheses central to chiropractic theories. Many chiropractic theories assert that the neurophysiological consequences of the subluxation arise from facilitated spinal cord segments. The neurons in a facilitated segment have a lowered threshold for discharge and produce exaggerated output responses to afferent input.

"Facilitated segments are thought to arise from sensory bombardment of the spinal cord, bombardment originating from sensitized nerve endings in and around vertebral facet joints. In this theoretical model, sensitization is hypothesized to arise from biomechanical or biochemical stimuli which abnormally increase the discharge of afferent nerves from paraspinal tissues.

"My research will test the hypothesis that biochemical factors stimulate and sensitize sensory endings to movement of a lumbar facet joint.

"It is my hope that this research will contribute to our understanding of the neural mechanisms hypothesized to underlie the subluxation. This will contribute to the scientific basis of chiropractic. It is also my hope that chiropractors and chiropractic students will contact me should they be interested in pursuing neuro-physiological studies. Currently I am looking for a post-doctoral candidate to contribute to these studies."

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