

LCC Endowed Chair in Chiropractic Research

2- Year Update

Since its inception in October 2007, the vision for the research program of the LCC Endowed Chair in Chiropractic Research at the University of South Florida (USF) has been to:

- Develop a world-class, multidisciplinary research program for chiropractic care, back pain, and related musculoskeletal disorders at the College of Medicine.
- Establish a model for chiropractic-medical partnerships in public universities.
- Provide much-needed community and societal support for those suffering from back pain and related disorders.

We continue to make substantial progress towards our goals as we successfully integrate a chiropractic research program within a college of medicine at a public university. Some of the key milestones of the LCC Research Chair's research program over the past year, along with current strategic initiatives, are highlighted below.

Research

The primary focus over our first 24 months has been to launch a clinical research program. Laboratory and clinic-based studies that have been recently completed, are in progress, or are planned include the following:

- Case series on investigational disc restorative solution for cervicogenic headache: Data have been analyzed and a technical report has been prepared.
- Efficacy of an investigational topical product for low back pain: Data collection is anticipated to begin soon on this extramurally-funded clinical trial.
- Activation patterns of the core trunk muscles in patients with low back pain and asymptomatic controls: A pilot research study in our laboratory utilizing diagnostic ultrasound, electromyography, and dynamometry is planned for fall 2009. The purpose of this work is to develop optimal exercise interventions for patients with chronic low back pain and special populations such as firefighters.

Other recent research accomplishments include ongoing projects with prominent domestic and international scientific organizations, such as:

- Task force to develop "current concepts" on spinal manipulation for low back pain.
- Guideline committee to develop recommendations for non-pharmaceutical, non-interventional treatment (including manipulation) of neuropathic pain.
- Systematic review on non-operative management for chronic low back pain in active individuals.

In order to accommodate the projected growth in research operations, the LCC Research Chair's infrastructure has been improved over the past year, including:

- Relocation and expansion of primary office. The chair's primary office is now adjacent to the Human Functional Performance Laboratory, which houses the chair's core research facilities.
- Acquisition of new research, IT, and diagnostic equipment, including spinal exercise testing and training equipment and general wellness-fitness equipment. The Human

Functional Performance Laboratory has also recently undergone expansion with the acquisition of a state of the art body composition assessment system and an isokinetic dynamometer, and upgrades to its motion analysis systems.

- USF approval to appoint a unit research administrator for the LCC Research Chair.

We have made great strides by utilizing the resources available from endowed funds (established through a generous donation from the Lincoln College Education and Research Fund and a match from the State of Florida), annual donations from the Florida Chiropractic Foundation, ongoing support from USF, and extramural funds awarded to the LCC Research Chair.

Nevertheless, future growth of the program (including the ability to carry out definitive, large-scale clinical trials) is dependent on procuring additional extramural funds. Over the next fiscal year, we will seek extramural funds through competitive research grant applications, other grants and contracts, and private donors. Some of the promising developments in this regard include:

- \$700,000 federal grant proposal titled “Low back injury prevention in firefighters”, which is benign considered for funding by FEMA, Department of Homeland Security. The LCC Research Chair is principal investigator on this project.
- \$1.6 million “Musculoskeletal Interdisciplinary Research Initiative”, which is being considered for funding by the Department of Defense. The L LCC Research Chair is investigator on this project, with Dr. Sandy Quillen as the principal investigator.

Teaching and knowledge translation efforts

The uniqueness of the LCC Research Chair’s position has provided an excellent platform to extend the awareness of chiropractic and evidence-based research findings within USF, public settings, and scientific communities. In addition to our research agenda, a significant commitment has been made to knowledge translation and teaching efforts, including:

- Teaching courses in the USF college of medicine:
 - Semester-long courses in health promotion and wellness, and research methods.
 - Family Medicine clerkship for third year medical students on evidence-based management of low back pain.
- Publishing full-text manuscripts in scientific journals and book chapters on topics such as non-operative management of low back pain, prolotherapy, neuropathic pain, and biomechanics.
- Presenting research findings at several domestic and international meetings on topics such as evidence-informed management of low back pain, firefighter wellness and fitness, chiropractic care, manual therapy, and strengthening exercise for athletic injuries.

Since its inception in October 2007, the research program of the LCC Research Chair has been fortunate to receive the support of the chiropractic community. While the upcoming year is expected to be challenging with the possibility of additional budget cuts in the State of Florida University System, it is also a year of great opportunity for chiropractic research. During the upcoming year, we hope to make considerable contributions to chiropractic research in order to achieve a better understanding of musculoskeletal disorders, which ultimately should help improve patient care.