

News from The Osteopathic Research Center

From the Executive Director

Dear Friends,

The past two months have been quite busy at The Osteopathic Research Center (ORC).

Late spring is one of my favorite times of year as we get to see the young people we have mentored move to the next phase in their professional lives.

It has been my privilege to serve as the mentor for two undergraduate osteopathic manipulative medicine (OMM) fellows who conducted research projects through the ORC. While the fellows are not specifically assigned to the ORC, our faculty and staff do play a large role in helping to bring their research projects for dual-degree programs to fruition.

Hollis King, DO, PhD, served as a mentor for the third OMM fellow who was pursuing a DO/MS degree.

Read more about these projects on page 3 of this newsletter.

On May 20, the ORC conducted its first webinar on the carpal tunnel syndrome study. To learn more about the webinar, please see the story on page 1.

I hope that you enjoy reading these updates from the ORC and that the newsletter helps you stay abreast of research activities and accomplishments at the center.

This April/May newsletter is one of two that we will combine throughout the year. Our next newsletter will cover updates from June and July, and will be disseminated in mid July. In August, we will return to our monthly publishing schedule.

Sincerely,
John C. Licciardone, DO, MS, MBA
Executive Director



Licciardone

The screenshot shows a web browser window with the URL <https://www1.gotomeeting.com>. The page title is "Osteopathic Research Center at UNTHSC Focused Research Forum on OMM and Carpal Tunnel Syndrome". The Osteopathic Research Center logo is visible, with the tagline "Fostering nationwide collaborative OMM research". A prominent orange button says "REGISTER NOW". Below it is a small portrait of Scott T. Stoll. The text on the page includes: "Join us for a Webinar on May 20", "This webinar series will aid in the promotion of the ORC and communicate ORC research findings. It will also contribute to the advancement of ORC research science.", "Title: Osteopathic Research Center at UNTHSC Focused Research Forum on OMM and Carpal Tunnel Syndrome", "Date: Tuesday, May 20, 2008", "Time: 12:00 PM - 2:00 PM CDT", "System Requirements: PC-based attendees (Windows® 2000, XP Home, XP Pro, 2003 Server, Vista) and Macintosh®-based attendees (Mac OS® X 10.3.9 (Panther®) or newer)", and "Space is limited. Reserve your Webinar Seat Now at: <https://www1.gotomeeting.com/register/140874087>".

ORC Debuts Webinar Series

As part of The Osteopathic Research Center's efforts to share information about the research being conducted at the center with our colleagues throughout the profession, we have instituted a webinar series that allows participants to engage in an interactive discussion with ORC principal investigators about research currently under way at the ORC.

Webinar participants also earn one hour of AOA Category 1-A Continuing Medical Education (CME) credit.

The ORC plans to host the webinars quarterly, and for the first year, will cover the CME costs for participants. All that is needed to join the webinar is an internet connection and phone line. Participants are provided with a toll-free number to call into the webinar.

The first webinar, led by Scott T. Stoll, DO, PhD, founding executive director of the ORC, was held on May 20. The webinar focused on Dr. Stoll's R21 grant that explores the efficacy of osteopathic manipulative treatment in carpal tunnel syndrome.

To download handouts from the webinar, please visit <http://www.hsc.unt.edu/education/pace/>.

In an online survey following the webinar, 90 percent of the participants rated the webinar as good or excellent, 90 percent said the session helped them understand current NIH funded clinical trial methodology, and 95 percent said the webinar helped them evaluate the strengths and weaknesses of this research effort. Ninety percent of participants said they would recommend the webinar to a colleague. Thirty seven people participated in the live program.

The next webinar will be held in August. Watch the ORC web site at <http://www.hsc.unt.edu/ORC> for more information.

Latest ORC Publications Focus on Clinical Research Methodology and Training

Two recent publications highlight the ORC's experience and activities in the realm of clinical research methodology and training. The first publication is a study protocol article appearing in *Osteopathic Medicine and Primary Care* in April. It describes the methodology of the OSTEOPATHic Health outcomes In Chronic low back pain (OSTEOPATHIC) trial, funded by the National Institutes of Health and the Osteopathic Heritage Foundation. The trial's principal investigator, John C. Licciardone, DO, MS, MBA, executive director of the ORC, is the lead author. Co-authors include Hollis H. King, DO, PhD, associate executive director of the ORC, Kendi L. Hensel, DO, director of the Osteopathic Manipulative Medicine (OMM) residency program, and Daniel G. Williams, DO, OMM resident. The article may be downloaded at <http://www.om-pc.com/content/pdf/1750-4732-2-5.pdf>.

The second publication is an invited commentary by Dr. Licciardone in the June issue of the *International Journal of Osteopathic Medicine*. The article summarizes his presentation in February at the Osteopathy Learning and Practice Symposium during the Advancing Osteopathy 2008 Conference in London, England. It focuses on the need for greater curricular content in evidence-based medicine to move forward the field of osteopathic research.

Hensel Presents at Several Venues

Kendi Hensel, DO, has made several presentations over the past few months.

She presented a lecture on Residents and Research at the American Academy of Osteopathy Residency Program Directors Workshop on March 29 in Addison, Texas, and spoke about osteopathic medicine at the University of Texas-Dallas College of Health Professions conference in Dallas, Texas on April 22.

She also presented an OMM Research Update and a workshop on OMM for a Hospitalized Patient on May 3 at the Nevada Osteopathic Medical Association conference in Las Vegas, Nev., and an OMM Research Update at the Oklahoma State University College of Osteopathic Medicine Spring Fling on May 16 in Tulsa, Okla.

Licciardone Presents Grand Rounds at Oklahoma State University Medical Center

John C. Licciardone, DO, MS, MBA, executive director of the ORC, presented Grand Rounds at Oklahoma State University Medical Center in Tulsa, Okla., on April 24. His presentation was entitled "Clinical Research with an Osteopathic Focus." He reviewed the rationale for conducting uniquely osteopathic research, evidence-based medicine concepts, and clinical research methodology. Additionally, Dr. Licciardone provided advice on planning and implementing clinical research projects. The presentation was aimed primarily at the medical center's house staff to encourage the development of clinical research skills during postgraduate training.

The Osteopathic Research Center Newsletter is published monthly in electronic format by The Osteopathic Research Center at the University of North Texas Health Science Center, Fort Worth, Texas.

ORC Executive Committee

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ORC Faculty Mentor Three Medical Students

Faculty members at The Osteopathic Research Center are called on to fulfill a number of roles related to research including serving as mentors for undergraduate medical students who are completing the research requirements for dual-degree programs.

At graduation in May, three TCOM students celebrated the successful completion of their DO/MS degrees. John Licciardone, DO, MS, MBA, executive director of the ORC served as the major professor to Laura Curlee and Elizabeth Bah, and Hollis King, DO, PhD, associate executive director of the ORC, served as the major professor for Simon Schrick-Senasac.

Descriptions of the studies as conducted by each of the three students are outlined below.

Prior Osteopathic Palpatory Training and the Accuracy of Clinical Breast Exams

The purpose of this research study conducted by Student Doctor Elizabeth Bah, was to evaluate whether there is an association between osteopathic palpatory training and increased accuracy of clinical breast exams. Incoming first-year medical students, second-year medical students, and physician assistant students participated in this study. During the study, 105 students palpated six silicone breast models with lumps of varying sizes, depths and hardness. Accuracy was measured by mean sensitivity, specificity and positive predictive value. The results of this study showed that there were no statistically significant differences in accuracy between the three student groups.

Osteopathic Manipulative Treatment for Post-Operative Nausea and Vomiting

The purpose of this research study, conducted by Student Doctor Schrick-Senasac, was to assess the efficacy of osteopathic manipulative treatment (OMT) for post-operative nausea and vomiting (PONV). The goal of using OMT was to return post-operative patients to autonomic homeostasis and improve anatomic maladies that may impair proper physiologic functioning. Individuals undergoing orthopaedic surgery under general anesthesia were recruited. Seventeen subjects were randomized and completed the study. Eight subjects received treatment immediately following emergence from anesthesia, nine subjects comprised the non-treatment control group. Treatment and control groups were well-matched with respect to all demographic variables, risk factors for PONV, and baseline vital signs and visual-analog scales. Incidence of PONV was low in both treatment and control groups, presumably because of the liberal use of prophylactic antiemetic medication. Future studies should work



Bah



Curlee



Schrick-Senasac

toward enrolling more subjects, including those at greater risk for PONV.

Student Doctor Schrick-Senasac received the W.O. Stockseth Award at the TCOM Awards Banquet. This award was established by Wayne and Norma Lee Stockseth, and is presented annually to a TCOM student who has demonstrated outstanding comprehension of osteopathic principles and concepts, and who has exceptional aptitude in their application to manipulative treatment.

The Use of Osteopathic Palpatory Findings in Screening for Nephropathy in Type 2 Diabetes Mellitus

The purpose of this research study, conducted by Student Doctor Laura Curlee, was to evaluate the accuracy of osteopathic palpatory findings in screening for diabetic nephropathy (kidney disease) in patients known to have type 2 diabetes mellitus. The hypothesis tested was that osteopathic palpatory findings at the thoracolumbar level T10-L2 are associated with type 2 diabetes mellitus and the development of renal disease. There were no statistically significant findings in this pilot study of 26 subjects.

Student Doctor Curlee received the Outstanding Graduate Student in OMM Award for her research efforts.

**Are You Interested
in Osteopathic Research?**

***7th International Conference on
Advances in Osteopathic Research
(ICAOR)***

Early Registration Ends August 1

To learn more about the conference or to register, please visit the Lake Erie College of Osteopathic Medicine website at <http://www.lecom.edu/index.php>

ORC Receives Bridge Funding for U19 Grant

The ORC has received bridge funding totaling \$770,624 for one year as a follow-up to the U19 Developmental Center for Research on Mechanisms of OMM, funded by the National Institutes of Health-National Center for Complementary and Alternative Medicine (NIH-NCCAM) grant that focuses on the mechanisms of osteopathic manipulation.

Michael Smith, PhD, research director for the ORC, is the principal investigator for the grant, which encompasses three projects, an administrative core and an osteopathic core.

Project 1, *Biomechanical Strain Regulation: A Cellular Model of OMM*, is led by Paul Standley, PhD, from the University of Arizona College of Medicine in Phoenix, Ariz.

Project 2, *Lymph Flow Enhancement by OMM in Conscious Dogs*, is led by Fred Downey, PhD.

Project 3, *Pain-Induced Sympathoexcitation: Effect of OMM*, is led by Dr. Smith.



Smith



Downey



Standley

This is the first bridge funding awarded to the University of North Texas Health Science Center.

The bridge funding was designed to continue the current research for one year while NIH-NCCAM determines the pathway for possible renewal of the developmental center mechanism.

The original award was a \$1.8 million, three-year U19 grant that was received in September 2004. For the past several months, work on projects under this grant have continued through a no-cost extension.

Five Students Receive SOMA Research Awards

Each year, The Osteopathic Research Center distributes up to five \$2,000 Student Osteopathic Research Fellowship Awards through a competitive process. The ORC pays the first \$1,000 of each award and the Osteopathic Heritage Foundation pays the second \$1,000 of each award.

The research is conducted at each student's school, and each student works closely with a mentor on her or his campus. This year's award recipients are:

1. Aaron Henderson and Jason Fisher. Changes in Salivary Alpha-Amylase After Osteopathic Manipulative Treatment. West Virginia School of Osteopathic Medicine. Mentor: Kristie Grove Bridges, PhD.
2. Grace Latorre. Neuroprotective Effects of Cranial Osteopathy on the Brain After Juvenile Seizures. New York College of Osteopathic Medicine. Mentor: Linda K. Friedman, PhD.
3. Emily Dilzer. The Use of Osteopathic Manipulative Medicine in the Enhancement of Pulmonary Function in an Impoverished Urban Sector of Duran, Ecuador. Philadelphia College of Osteopathic Medicine. Mentors: Nicholas Bower, DO and Michael Kuchera, DO, FAAO.
4. Sherry Zakhary. Amelioration of Oxidative Stress and Motor Deficits with Osteopathic Manipulative Treatment in a Mouse Model for Human Parkinson's Disease. New York College of Osteopathic Medicine. Mentor: Joerg R. Leheste, PhD.
5. Vanesa DeSousa, Jon Froyd and Paul Round. Changes in sEMG, Clench Force and Skin Blood Flow Following Osteopathic Counterstrain Treatment Directed to the Forearm and Upper Trapezius. A.T. Still University College of Osteopathic Medicine-Mesa, Ariz. Mentor: Deborah Heath, DO.

Licciardone Receives Cohen Research Award



John C. Licciardone, DO, MS, MBA, executive director of the ORC, received the Benjamin L. Cohen, DO, Award for Achievement in Faculty Research at the annual Graduate School of Biomedical Sciences (GSBS) banquet on May 9. The award is given annually to a University of North Texas Health Science Center faculty member in honor of the retired UNTHSC provost for his focus on increasing the research efforts of faculty at the institution. Dr. Licciardone has been a member of the UNTHSC faculty since 1987. In addition to serving as the executive director of the ORC, Dr. Licciardone also serves as the Osteopathic Heritage Foundation Clinical Science Research Chair for the ORC and as the acting associate dean for clinical research for the Texas College of Osteopathic Medicine. Dr. Licciardone (center) is shown here with Thomas Yorio, PhD, (left) executive vice president for academic affairs and research, and Marc Hahn, DO, (right) dean of TCOM. Photo by Tommy Hawkes.