

## **From the Executive Director**

Dear Friends,

Welcome to 2009. The Osteopathic Research Center has experienced an amazing start to the new year.

It is my privilege to highlight some of the major initiatives that have come to fruition in the ORC during the first few weeks of the new year. You can read more about these initiatives in this newsletter



**Licciardone**

Effective December 19, 2008, the ORC became an autonomous department within the University of North Texas Health Science Center (UNTHSC). Previously, the ORC had been under the umbrella of the osteopathic manipulative medicine department. As part of this transition, the ORC was also designated as a Health Institute of Texas within UNTHSC. These changes allow the ORC to function more autonomously within the University structure while still advancing its focus on osteopathic research. Under this new structure, the ORC reports directly to the UNTHSC provost and executive vice president for academic affairs, as well as maintains an indirect reporting line to the dean of the Texas College of Osteopathic Medicine.

With the new reporting structure in place, the ORC can advance several new initiatives including building an endowment. This is critical to the future of the ORC and its ability to maintain a well-rounded osteopathic research agenda that includes large clinical trials, cutting-edge basic science research focused on the mechanisms of action of osteopathic manipulative treatment, and health services and policy research that uses large national databases to explore distinctive patterns of osteopathic medical practice as compared with other health care providers.

See *DIRECTOR*, Page 2

## **ORC Develops New Logo**

As The Osteopathic Research Center begins its eighth year of operation, its leadership felt a new logo would better represent the vision and mission of the center.

The ORC worked with DesignWorks in Arlington, Texas, to develop the logo.

When developing the new logo, we wanted to be able to represent the ORC as the profession-wide research center, yet still have a graphic tie to our physical home at the University of North Texas Health Science Center.

We also wanted a tagline that articulated the broader research mission of the ORC and we felt that “Where Science Meets Practice” describes the heart and soul of the ORC’s mission. We hope that the evidence base developed here will change the way osteopathic medicine is practiced, and ultimately foster a new paradigm of medical care.

In the graphic element, we saw hands encompassing a stylized spine, and we felt that the entire element had a feeling of symmetry and wholeness.

Finally, the new logo retains the blue that was used in the previous logo, and incorporates the red used by UNTHSC.



*Where Science Meets Practice™*

A few days before the holidays in December, the ORC moved its administrative offices to the fourth floor in the Center for BioHealth across the hall from the Osteopathic Heritage Foundation Core Research Facility. Photos of the new facilities are included on page 3 of this newsletter.

The ORC's clinical research unit will continue to be housed in the ENX-2 building that is located across from the Gibson D. Lewis Library until other space becomes available. While the clinical research facilities remain housed in the same space, they have a new look that has a very Tuscan flavor to the decor. Many thanks to Debbie Lewis, RN, Mayra Rodriguez, Damien Zamora, Dorothy Lindsey, Mitch Lindsey, Cathy Kearns and Dayton Atwood for their efforts in painting the area over the Martin Luther King holiday. Photos of the newly decorated area are included in this newsletter on page 4.

Dennis Minotti, DO, has joined the ORC on a part-time basis. He will be providing treatments for the human subjects in the ORC's clinical trials and in pilot studies. He will also be assisting with the basic science studies conducted by Lisa Hodge, PhD, and Fred Downey, PhD. Learn more about Dr. Minotti on page 7.

Russell Gamber, DO, MPH, a professor in the osteopathic manipulative medicine department, has also been hired by the ORC to provide OMT to research subjects one afternoon each week.

The ORC is reconfiguring several of its internal committees and advisory boards to help insure a solid foundation for moving the center to the next

## ***ORC Leaders Respond to AOA Funding Suspension***

The American Osteopathic Association, at the recommendation of its Board of Trustees, has elected to suspend funding of The Osteopathic Research Center because the University of North Texas Health Science Center is studying the question of whether it should pursue the possibility of offering a MD degree on campus in addition to the DO degree.

While AOA's funding suspension will have no impact on the internal operations and research projects being conducted at the ORC, we are now less able to provide research support to others outside the ORC.

An unfortunate consequence of AOA's funding suspension is that the ORC is unable to divert any of its resources at present to support or collaborate in external projects that do not provide direct funding to the ORC.

We were also forced to cancel the Osteopathic Collaborative Clinical Trials Initiatives Conference in Little Rock, Arkansas, because of AOA's action.

level of development. Watch for more information about restructuring in the next edition of the ORC Newsletter.

Finally, as many of you know, there has been a great deal of controversy and discussion throughout the profession about the potential of adding a MD degree program at the University of North Texas Health Science Center. I have been serving on the study group staff, which continues to help evaluate the issue in an objective manner. Regardless of what decision is made, the ORC will continue its focus on uniquely osteopathic research to develop the evidence base for osteopathic medical care.

Sincerely,  
John C. Licciardone, DO, MS, MBA  
Executive Director and  
Osteopathic Heritage Clinical Research Chair



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

### ***ORC Directors and Chairs***

**John C. Licciardone, DO, MS, MBA**  
*Executive Director and  
Osteopathic Heritage Clinical Research Chair*

**Cathleen M. Kearns**  
*Administrative Director*

**Lisa M. Hodge, PhD**  
*Osteopathic Heritage Basic Science Research Chair*

**Roberto Cardarelli, DO, MPH**  
*Director of Translational Research*

**H. Fred Downey, PhD**  
*Regents Professor and Director of Applied Research*

**Karan P. Singh, PhD**  
*Director of Biostatistics*

**des Angles Crusier, PhD, MPA**  
*Director of Research Education*

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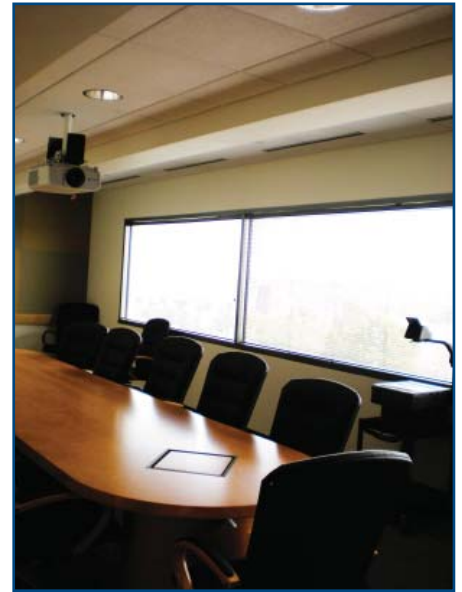
# Welcome to the ORC's New Home



The 4th Floor Lobby



The Center for BioHealth



The 4th Floor Conference Room



The 4th Floor Break Room



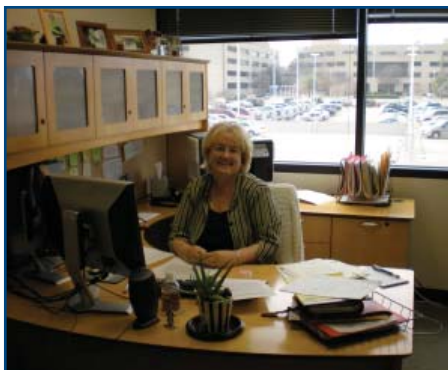
John Licciardone, DO, MS, MBA  
Executive Director and Osteopathic  
Heritage Clinical Research Chair



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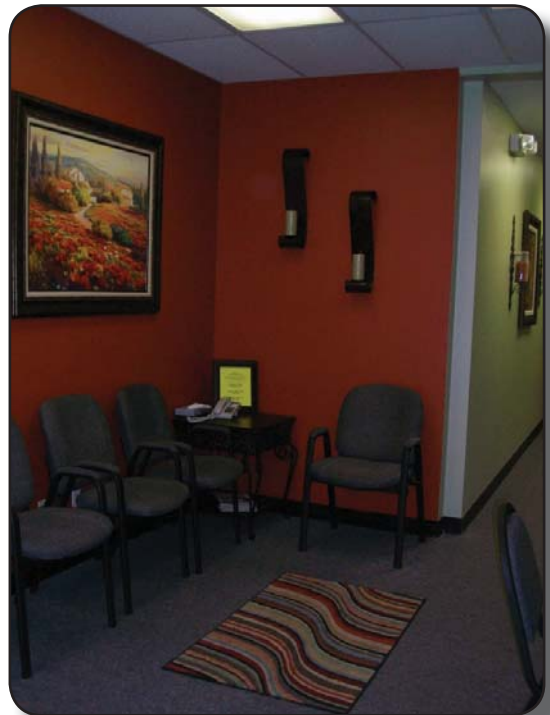


Cathy Mobley  
Administrative Specialist



Looking out the hallway window at the  
UNTHSC campus

# Welcome to the ORC's Newly Renovated Clinical Research Unit



The "interior designers" on the ORC staff shared a new set of talent by redecorating the clinical research unit in ENX-2 on a very small budget. After several weeks of painting parties, the results are in. Photos by Debbie Lewis, RN



# **\*\* CANCELED \*\***

## ***OCCTIC X:***

### **Training Researchers in Manual Medicine**

***March 23-24, 2009***

***Little Rock, Arkansas***

***The Osteopathic Research Center is unable to support the conference this year because it has not yet received its 2009 operating funds and related OCCTIC support from several of its sponsors. In communication with several stakeholders, no viable alternatives for proceeding with the conference were identified.***



***Thanks to the conference co-chairs, Michael Smith, PhD, ORC Research Director, and Kendi Hensel, DO, OMM Residency Director, for their efforts on the conference to date. We appreciate the work of a number of individuals who had contributed their time and effort to developing this conference.***

## Hodge Explores Impact of OMT on Immune System

The question: How do you validate a classic osteopathic theory using scientifically rigorous research?

Partial answer: Hire an immunologist who spends 80 percent of her time exploring this and other questions relative to the mechanisms of action of osteopathic manipulative medicine.

For years, a central osteopathic question has focused on lymphatic pump technique and the impact it has on the lymphatic and immune systems.

Lisa M. Hodge, PhD, the ORC's Osteopathic Heritage basic science research chair, and assistant professor of molecular biology and immunology, along with other basic scientists at the University of North Texas Health Science Center in Fort Worth, has been exploring the underlying mechanisms of lymphatic pump treatment, and the impact of this treatment on the immune system.

In November, Dr. Hodge received the ORC's first R01 grant from the National Institutes of Health-National Center for Complementary and Alternative Medicine entitled "Mechanisms of Lymphatic Pump Enhancement of Immune Function." The \$1.4 million grant started January 1, and will end December 31, 2012.

Dr. Hodge and her research team work closely with Fred Downey, PhD, regents professor and the ORC's director of applied research, to assess the mechanisms by which lymphatic pumps enhance immune surveillance in a healthy state.

The team has demonstrated that manipulation using the lymphatic pump technique significantly increases lymphatic flow rate and leukocyte numbers, and that the mucosal lymphoid tissues are a source of the lymph and leukocytes released during OMT.

The team also found that leukocyte numbers return to baseline within 10 minutes after the treatment is completed, which suggests that lymphatic pump techniques mobilize and potentially redistribute leukocytes.

Dr. Hodge explained that this significant mobilization of leukocytes may be one of the mechanisms responsible for the increased immune responses and enhanced clearance of pulmonary infections observed in patients given lymphatic pump, especially if leukocytes are redistributed into infected lung tissue.

In addition to looking at the effect of lymphatic pump techniques in enhancing

the immune system in a healthy state, Dr. Hodge and her research team are looking at the impact of lymphatic pump techniques on respiratory infections using bacterial pneumonia models. One of the underlying premises in this area of research is that enhancing the lymphatics can clear interstitial fluids and help alleviate inflammation and pain. The team has seen some of these responses not only in acute respiratory infection, but to some extent, in chronic, low-grade infections as well.

Dr. Hodge is also using an animal model to assess the impact of lymphatic pump treatment on cancer. For years, osteopathic physicians have believed that manipulation applied in patients with cancer potentially spread the disease. Dr. Hodge's team is studying this question using a well established rat model of breast cancer.

Dr. Hodge's research team is expanding their efforts to look at the impact of osteopathic manipulation in humans. Areas of exploration include looking at leukocytes, and pro- and anti-inflammatory cytokines in the blood after manipulation to see if manipulation modifies the inflammatory response.

Over the past year, Dr. Hodge has been invited to speak about her research at several national and international conferences. In April, she will be a guest speaker at Ohio University College of Osteopathic Medicine in Athens, Ohio. In May, she will be the invited speaker at Research Day at Northwestern University's Glendale, Illinois campus.



## *Minotti Joins ORC as Part-Time Faculty Member*



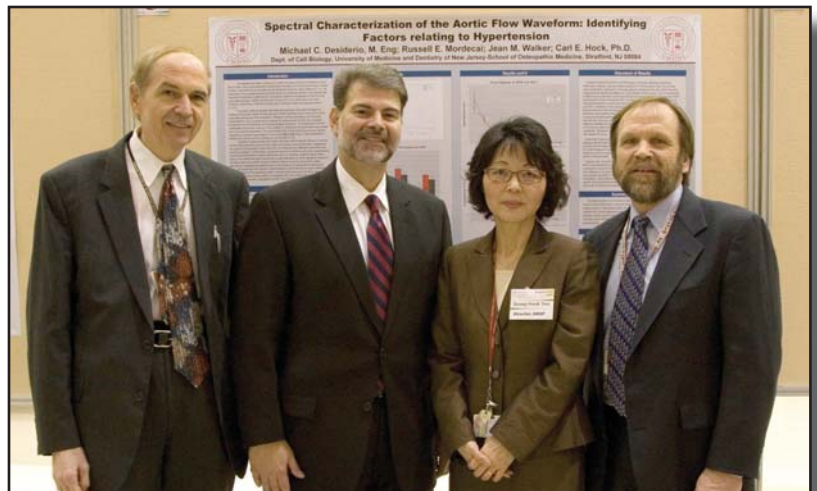
Dennis E. Minotti, DO, has joined The Osteopathic Research Center faculty half-time. Dr. Minotti provides treatments for subjects in the ORC's clinical trials that are funded by the National Institutes of Health - National Center for Complementary and Alternative Medicine.

Dr. Minotti is a 2005 graduate of the Ohio University College of Osteopathic Medicine. He completed his neuromusculoskeletal medicine residency at Plaza Medical Center/University of North Texas Health Science Center in July 2008. During his residency training, Dr. Minotti worked with the ORC to treat research subjects in the low back pain and carpal tunnel syndrome studies.

He lives in Southlake, Texas, with his wife Brooke and their young daughters, Sydney and Sierra.

## *Licciardone Gives Keynote Address at UMDNJ Research Day*

John C. Licciardone, DO, MS, MBA, the executive director and Osteopathic Heritage clinical research chair for The Osteopathic Research Center, delivered the keynote address at Research Day at the University of Medicine and Dentistry of New Jersey-School of Osteopathic Medicine in Stratford, NJ, on March 19. His presentation, entitled "Osteopathic Research: Integrating Science, Evidence, and Clinical Practice to Inform Health Policy," focused on the basic mechanistic, clinical, and health services research being conducted at the ORC. He viewed more than 75 poster presentations, and emphasized the importance of student research for personal career development and in advancing the osteopathic medical profession. Dr. Licciardone is pictured here at the end of the day with Thomas Cavalieri, DO, dean of UMDNJ-SOM, Jeong-Sook Yoo, PhD, director of the office of research and sponsored projects, and Carl Hock, PhD, associate dean for research and the graduate school of biomedical sciences. Photo by Robert McBride, UMDNJ-SOM.



*Thank you to the  
Houston Osteopathic Foundation  
for its generous, unrestricted gift to  
The Osteopathic Research Center*

# ORC to Co-Host 2009 AOA Research Conference

The Osteopathic Research Center and Steven Berley, DO, a family physician from Lindenhurst, New York, are teaming up to co-host the 2009 AOA Research Conference November 1-3 in New Orleans.

John C. Licciardone, DO, MS, MBA, the executive director of the ORC and the Osteopathic Heritage Clinical Research Chair, submitted the application to the AOA last fall to lead a conference focused on genomics in osteopathic research and clinical practice.

A preliminary agenda is included below. See the AOA website at [www.do-online.org](http://www.do-online.org) for more information.

## *Sunday, November 1, 2009* **The Science Behind Genomics**

7:30 a.m. - 7:45 a.m.	Introductory remarks
7:45 a.m. - 8:30 a.m.	From genetics to genomics
8:30 a.m. - 9:15 a.m.	The current state of genetic sequencing
9:15 a.m. - 9:45 a.m.	Proteomics, metabolonomics and pharmacogenomics
9:45 a.m. - 10:00 a.m.	Q & A
10:00 a.m. - 10:15 a.m.	Break
10:15 a.m. - 11:00 a.m.	Bioinformatics
11:00 a.m. - 11:45 a.m.	Osteopathic principles applied in the genomic era
11:45 a.m. - 12:00 p.m.	Q & A
12:00 p.m. - 1:00 p.m.	Research lunch

## *Monday, November 2, 2009* **Translational Genomics**

9:30 a.m. - 10:00 a.m.	Genome-Wide Association Studies (GWAS): applications, limitations and promises
10:00 a.m. - 10:30 a.m.	Copy number variation (CNV) analysis and causative mutations
10:30 a.m. - 10:45 a.m.	Break

10:45 a.m. - 11:15 a.m.	EMR-assisted genomic screening
11:15 a.m. - 11:45 p.m.	Direct-to-consumer genomic medical services
11:45 a.m. - 12:15 p.m.	Emerging genomic laboratory tests
12:15 p.m. - 1:15 p.m.	Round table discussion

## *Tuesday, November 3, 2009* **Clinical Genomics**

8:00 a.m. - 8:30 a.m.	An osteopathic primary care model for integrating genomic medicine into clinical practice
8:30 a.m. - 9:00 a.m.	Genomic factors as predictor of response to osteopathic manipulative treatment among low back pain patients
9:00 a.m. - 9:30 p.m.	Public health issues in genomic medicine
9:30 a.m. - 10:00 a.m.	The role of the genetic counselor
10:00 a.m. - 10:15 a.m.	Break
10:15 a.m. - 10:45 a.m.	Genomics applied in obstetrics and gynecology
10:45 a.m. - 11:15 a.m.	Clinical neurogenomics
11:15 a.m. - 11:45 p.m.	Pharmacogenomics and the promise of personalized medicine
11:45 p.m. - 12:15 p.m.	Social and ethical issues pertaining to genomic medicine
12:15 p.m. - 1:00 p.m.	Round Table Discussion

# ORC to Debut New Website This Spring



Where Science Meets Practice™

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The Osteopathic Research Center is the premier research center focusing on the clinical efficacy and mechanisms of action of osteopathic manipulative treatment (OMT). The ORC also conducts health services and policy research by performing systematic reviews of the literature, conducting population-based surveys, and analyzing national health care databases to determine the unique practice characteristics of osteopathic physicians and to provide scientific evidence to support osteopathic medicine.

The ORC is making great strides in developing a research center focused on OMT through clinical trials, basic science research involving mechanisms of action, and health services and policy research. It operates a fast-paced clinical research enterprise with numerous NIH-funded studies, including the OSTEOPATHic Health outcomes In Chronic low back pain Trial (OSTEOPATHic Trial), which is projected to be the largest clinical trial involving OMT. Cutting-edge basic science research is assessing the response to OMT techniques, such as lymphatic pump, at the molecular and cellular level. The ORC's health services and policy research is providing the evidence to develop clinical practice guidelines for OMT in conditions such as low back pain. Faculty at the ORC have been recognized for their research accomplishments through national awards, invitations to present at national and international conferences, and by serving in consultative roles with such organizations as the World Health Organization.



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This page was last updated: February 25, 2009.

 UNT HEALTH SCIENCE CENTER

The Osteopathic Research Center plans to debut a new website design this spring. The image above is a prototype of the new home page. While the final design may differ slightly, we felt this was a very clean, streamlined home page that loads quickly. The new website is part of the ORC's branding campaign that was launched in March. Michael Wood, the former network administrator for the American Association of Colleges of Osteopathic Medicine has been assisting the ORC with the redesign and upgrade of the site. Visit the ORC website at [www.hsc.unt.edu/orc](http://www.hsc.unt.edu/orc).

## *Database Development Enhances ORC Infrastructure*

The Osteopathic Research Center has been working to upgrade its infrastructure by developing web-based databases to manage its mailing lists and contacts, grants and publications.

The new databases are in the final stages of development. They will be placed on a web-based server, which will allow staff to access the information from any location.

Michael Wood, the former network administrator at the American Association of Colleges of Osteopathic Medicine, has been working with the ORC to design and implement the databases.

"These databases will be a tremendous help in streamlining preparation of reports to funding organizations and in completing grant applications," said Cathleen Kearns, administrative director of the ORC. "Before, information for each report had to be compiled manually, which led to inconsistent reporting. This is one more way the ORC is using a relatively small amount of money to restructure processes and to expand the mission of the ORC."

The new databases should be populated with streamlined data and fully functional this spring.

## 2009 UNTHSC Research Appreciation Day:

# *NCCAM Director Gives Keynote Address; Nearly 200 Participate in Poster Session*

Josephine Briggs, MD, (top right) the director of the National Center for Complementary and Alternative Medicine at the National Institutes of Health, visited the University of North Texas Health Science Center campus in Fort Worth on March 5 and 6. John Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center and the associate dean for clinical research for the Texas College of Osteopathic Medicine, invited Dr. Briggs to speak at Research Appreciation Day (RAD). In addition to speaking at RAD, Dr. Briggs and Dr. Licciardone spoke at length about the NCCAM-funded research being conducted at the ORC. She also toured the ORC's Clinical Research Unit. Photos by Tommy Hawkes and Debbie Lewis.



## *Licciardone Named OHF Richards-Cohen Distinguished Chair*

John C. Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center and the Osteopathic Heritage Clinical Research Chair for the ORC, has been named the Osteopathic Heritage Foundation Richards-Cohen Distinguished Chair for Clinical Research in conjunction with his duties as the associate dean for clinical research for the Texas College of Osteopathic Medicine, located on the University of North Texas Health Science Center campus in Fort Worth.

The OHF Richards-Cohen Distinguished Chair is an endowed chair position that was created in 2001 to advance osteopathic research and education at the Texas College of Osteopathic Medicine.

As the associate dean for clinical research, Dr. Licciardone is responsible for increasing research across

all departments in the Texas College of Osteopathic Medicine.

Over the next year, he will not only be encouraging each department to engage in more research, he will work with a team of TCOM leaders to create faculty development programs to enhance the research mission.

The University of North Texas, the parent university of the Health Science Center, seeks to become a Tier I research university, and the Health Science Center and the Texas College of Osteopathic Medicine play a large role in that endeavor.

Dr. Licciardone will continue his duties as executive director of the ORC, and as the Osteopathic Heritage Clinical Research Chair.

## *ORC Begins Looking at Genetic Link in Response to OMT*

The Osteopathic Research Center and the University of North Texas Health Science Center (UNTHSC) Center for Human Identification, have received an intramural grant from UNTHSC to begin to evaluate whether there are genetic differences in people who respond to osteopathic manipulative treatment versus those who do not.

John Planz, PhD, an associate professor and assistant director of the Center for Human Identification, serves as the principal investigator for the project. John C. Licciardone, DO, MS, MBA, executive director of the ORC and the Osteopathic Heritage Clinical Research Chair, serves as the co-investigator.

The \$25,000 project will allow clinical research coordinators in the ORC to collect buccal (cheek) swabs from subjects in the OSTEOPATHIC Health outcomes In Chronic low back pain (OSTEOPATHIC) Trial in order to study their DNA.

Investigators are looking to see if there are any genetic differences between people who respond to OMT compared to those who do not respond to OMT. They will also look to see if gender or racial differences may play a role.

Once a subject is qualified for and randomized into the chronic low back pain study, the buccal swab is taken and sent to the Center for Human Identification for analysis. Subjects who have completed the study have been contacted and given the opportunity to participate as well.

“We are fortunate to have a DNA lab of this caliber that is willing to work with us on genetic projects,” Dr. Licciardone said. “Our Center for Human Identifi-

cation has been recognized throughout the world as being a top-notch facility, and is one of two external labs in the country that can contribute directly to the FBI CODIS database. I certainly think that this could be a new frontier in maximizing the impact of OMT for patients,” he added.

## *Meet Joy Ebo - the ORC's New Intern*

Joy Ebo, a master of science student in the Clinical Research Management program in the Graduate School of Biomedical Science at the University of North Texas Health Science Center in Fort Worth, is completing a six-month internship with The Osteopathic Research Center.

Interns in this program work 40 hours each week to complete the practicum portion of their degree program. Ms. Ebo is the second intern that has been assigned to the ORC under this program. Interns learn all of the various facets and duties of a clinical research coordinator during their tenure with the ORC.

Debbie Lewis, RN, the ORC clinical research supervisor, oversees students assigned to the ORC for this experience. Patricia Gwirtz, PhD, is the advisor for the internship.



**Ebo**

# Article Highlights DO Practice Differences in Treating Patients with Low Back Pain

Do osteopathic physicians treat low back pain differently than other health care providers? The osteopathic profession has always maintained that DOs have a unique practice style, and now, there is one additional piece of evidence that there are distinctive differences in the way osteopathic physicians treat patients with low back pain.

An article that was published in final format in January in the online, open-access journal, *Osteopathic Medicine and Primary Care*, analyzed data in the National Ambulatory Medical Care Survey (NAMCS) database to determine if there were distinctive differences between how osteopathic physicians treated low back pain compared to other health care practitioners.

John C. Licciardone, DO, MS, MBA, the executive director of The Osteopathic Research Center, and the Osteopathic Heritage clinical research chair, conducted an analysis that included direct observations of 1,539 patients, which were extrapolated to represent

over 30 million patient visits annually to physicians for low back pain.

The analysis showed that osteopathic physicians provided a disproportionately greater number of visits for low back pain compared with allopathic physicians (2.6 times more visits than MDs for all low back pain cases, and 4.4 times more visits than MDs for chronic low back pain cases).

It also showed that osteopathic physicians prescribed drugs less often than allopathic physicians in treating low back pain (43% of the MD rate for non-steroidal anti-inflammatory drugs, 70% of the MD rate for opioid analgesics, and 44% of the MD rate for all drugs combined). The NAMCS is a federal database developed by the National Center for Health Statistics.

To view the complete article, visit <http://www.ompc.com/content/2/1/11>.

The journal is published by BioMed Central.

## Support uniquely osteopathic research with a donation to



*Where Science Meets Practice™*

**Now more than ever, your contribution helps us conduct clinical trials that look at the efficacy of osteopathic manipulative treatment, basic science research that explores the underlying mechanisms of action of OMT, and health services and policy research that helps highlight the distinctive ways in which osteopathic physicians provide patient care.**

**Please send any donations to The Osteopathic Research Center, UNTHSC, 3500 Camp Bowie Boulevard, Fourth Floor, Center for Bio-Health, Fort Worth, TX 76107. Attn: Cathleen Kearns**