

Annual Report 2011



THE
OSTEOPATHIC
RESEARCH
CENTER



Where Science Meets Practice





Annual Report 2011

The leadership of The Osteopathic Research Center wishes to thank the

Osteopathic Heritage Foundation

University of North Texas Health Science Center

Texas College of Osteopathic Medicine

for their generous financial support during FY2010 and FY2011

Cover Photos:

Top Photo: The inaugural class of the Consortium for Collaborative Osteopathic Research Development-Practice Based Research Network (CONCORD-PBRN). Front row from left: D'Arcie Chitwood, DO, MPH, University of North Texas Health Science Center-Texas College of Osteopathic Medicine, Natalie Nevins, DO, MSHPE, Downey Regional Medical Center; Reem Abu-Sbaih, DO, New York College of Osteopathic Medicine at the New York Institute of Technology, Robin Dyer, DO, Oklahoma State University Center for Health Sciences College of Osteopathic Medicine, Deborah Heath, DO, A.T. Still University of Health Sciences School of Osteopathic Medicine, Amber Heck, PhD, Rocky Vista University College of Osteopathic Medicine, A. Scott Winter, MD, University of North Texas Health Science Center-Texas College of Osteopathic Medicine. Middle row from left: Hollis King, DO, PhD, University of Wisconsin Medical School-Madison, William Devine, DO, Midwestern University-Arizona College of Osteopathic Medicine, Kevin Treffer, DO, Kansas City University of Medicine and Biosciences, Murray Berkowitz, DO, MA, MS, MPH, Philadelphia College of Osteopathic Medicine-Georgia Campus, Mark Sanders, DO, MPH, JD, Midwestern University-Chicago College of Osteopathic Medicine, Michael Seffinger, DO, Western University of Health Sciences-College of Osteopathic Medicine of the Pacific. Back row from left: Cathleen Kearns, The Osteopathic Research Center, Wm. Thomas Crow, DO, Florida Hospital East, John Licciardone, DO, MS, MBA, The Osteopathic Research Center, Peter Zajac, DO, Pikeville College School of Osteopathic Medicine, Stephen Miller, DO, MPH, Lincoln Memorial University-DeBusk College of Osteopathic Medicine. Not pictured: Marcel Fraix, DO, Western University of Health Sciences-College of Osteopathic Medicine of the Pacific. Photo by Tommy Hawkes.

Bottom Photo: John C. Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center, discusses his article on Sociodemographic and Geographic Characteristics Associated with Patient Visits to Osteopathic Physicians for Primary Care, with Regina Benjamin, MD, the surgeon general of the United States, following her presentation at the 2010 AACOM Annual Meeting in Bethesda, Md. Photo courtesy of AACOM.

The Osteopathic Research Center is moving from a biennial report to an annual report with this 2011 edition.

Report content and design by Cathleen Kearns unless otherwise noted. Photos by Jeremy Enlow, Steel Shutter Photography, Tommy Hawkes, UNTHSC, Jonnathan Reed and Cathleen Kearns. Please see individual photo credits.

From the Executive Director: Setting the Stage



Greetings from The Osteopathic Research Center (ORC). It is my pleasure to present the ORC's 2011 Annual Report, and to announce that we will be publishing our report annually rather than biennially as we have in the past.

As those of you who read our quarterly newsletter know, there have been a number of significant accomplishments in advancing uniquely osteopathic research through the ORC in the past several months. Our faculty have also earned many accolades for their work both nationally and internationally.

One of our cornerstone accomplishments in the past several months, which also is the foundation of many future research projects, is the Consortium for Collaborative Osteopathic Research Development - Practice Based Research Network (CONCORD-PBRN), and its associated Patient-Oriented Research Fellowship.

The inaugural class of patient-oriented research fellows is a dynamic group of 13 osteopathic physicians and one basic science faculty member from across the country. Fellows commit to completing a 162-hour curriculum through six Extended Weekend Seminars in the first year of the program, and to collecting data for various research projects in collaboration with the ORC for an additional two years. I am excited about the potential for this training program to significantly advance the scope of osteopathic research on multiple levels. More information about the CONCORD-PBRN and the fellowship is included on pages 6-11.

In January 2011, we completed the five-year study titled, "A Randomized Controlled Trial of Osteopathic Manipulative Treatment and Ultrasound Physical Therapy for Chronic Low Back Pain."

See DIRECTOR, Page 4



Photo by Jeremy Enlow.

Data analysis for this study is ongoing, and we are preparing manuscripts for publication as this report is going to press. Please watch future issues of our quarterly newsletter for additional information about this study, which was funded through a K24 Midcareer Investigator grant from the National Institutes of Health-National Center for Complementary and Alternative Medicine (NIH-NCCAM). The Osteopathic Heritage Foundation, the University of North Texas Health Science Center and the Texas College of Osteopathic Medicine also provided financial support for this study through funding to the ORC.

Another major accomplishment since our last report includes the publication of our research on the use of osteopathic manipulative treatment (OMT) for low back pain in the third trimester of pregnancy. The results of this research were published in the *American Journal of Obstetrics and Gynecology* in 2010 in an article titled, "Osteopathic Manipulative Treatment of Back Pain and Related Symptoms During Pregnancy: A Randomized Controlled Trial." I served as principal investigator for the study. Other investigators included Steve Buchanan, DO, Kendi L. Hensel, DO, PhD, Hollis H. King, DO, PhD, Kimberly G. Fulda, DrPH, and Scott T. Stoll, DO, PhD. This research was also featured as a Research Spotlight on the NCCAM website. Please see pages 16-17 for more information.

In May 2010, Robert J. Gatchel, PhD, the ORC's director of biopsychosocial research and I were invited participants in the Deconstructing Low Back Pain workshop convened by NCCAM. This workshop featured renowned experts on low back pain from across the country. To learn more about the workshop, please see page 24.

A systematic review and meta-analysis that was completed at the ORC in 2005 served as the primary resource for the American Osteopathic Association's Guidelines for the Use of Osteopathic Manipulative Treatment (OMT) for Patients with Low Back Pain. This guideline was published in 2010 on the Agency for Healthcare Research and Quality website. For more on this story, please see page 15.

I also was honored to deliver the J.O. Watson, DO Memorial Lecture during the 2010 Ohio Osteopathic Symposium. The award recognizes individuals who have advanced osteopathic healthcare, osteopathic medical education or research through their medical education or scientific efforts. For more information, please see page 25.

I hope that you enjoy this report.



Photo by Jeremy Enlow.

ORC Directors and Chairs Help Advance Vision



The Osteopathic Research Center's directors and chairs constitute the main leadership body for the center. The research they conduct rounds out the ORC research portfolio across the three domains of clinical research, basic science research, and health services and policy research. They also provide guidance on enhancing current research efforts as well as provide input to the ORC's future research endeavors.

The ORC directors and chairs are:

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

Karan P. Singh, PhD
Director of Biostatistics

Robert J. Gatchel, PhD
Director of Biopsychosocial Research

Fernando Wilson, PhD
Director of Health Services and Policy Research



Pictured from left (bottom): John C. Licciardone, Cathleen Kearns, Lisa Hodge and Fernando Wilson. From top right: Karan Singh and Robert Gatchel. Photos by Jeremy Enlow and Tommy Hawkes.





CONCORD-PBRN & POR Fellowship: *Revolutionizing Osteopathic Research*

The Osteopathic Research Center has created a Patient-Oriented Research (POR) fellowship program and an associated Consortium for Collaborative Osteopathic Research Development-Practice Based Research Network (CONCORD-PBRN).

The CONCORD-PBRN is a unique approach to developing a practice-based research network for the osteopathic profession because it focuses on a realistic pathway for training midcareer physician researchers. The CONCORD-PBRN uses Extended Weekend Seminars as the foundation of its training component. Each fellow selected for the program commits to attending six Extended Weekend Seminars at the ORC, located on the University of North Texas Health Science Center campus in Fort Worth, Texas, and to collecting data in collaboration with the ORC for two practicum years following completion of the didactic year. Seminars are held all day Thursday, Friday and Saturday in February, April, June, August, October and December. The six seminars constitute 162 hours of curriculum that is delivered by ORC directors and faculty members. Based on funding availability, the ORC covers travel and curriculum-related expenses for a specified number of fellows accepted into the program each year.

The ORC had initially sought to accept eight fellows into the inaugural 2011 class, but based on the outstanding quality and number of applicants, the ORC accepted 14 fellows for the 2011 class.

The CONCORD-PBRN is certified by the Agency for Healthcare Research and Quality as a primary care practice-based research network. Of the 14 fellows accepted for the 2011 patient-oriented research class, eight are board certified in family medicine with five of those fellows also board-certified in neuromusculoskeletal medicine.

The CONCORD-PBRN was developed because the osteopathic profession has struggled with conducting large clinical studies to evaluate the processes and outcomes of osteopathic medical care, including osteopathic manipulative treatment.

Currently, The Osteopathic Research Center is the only research center in the world that is conducting

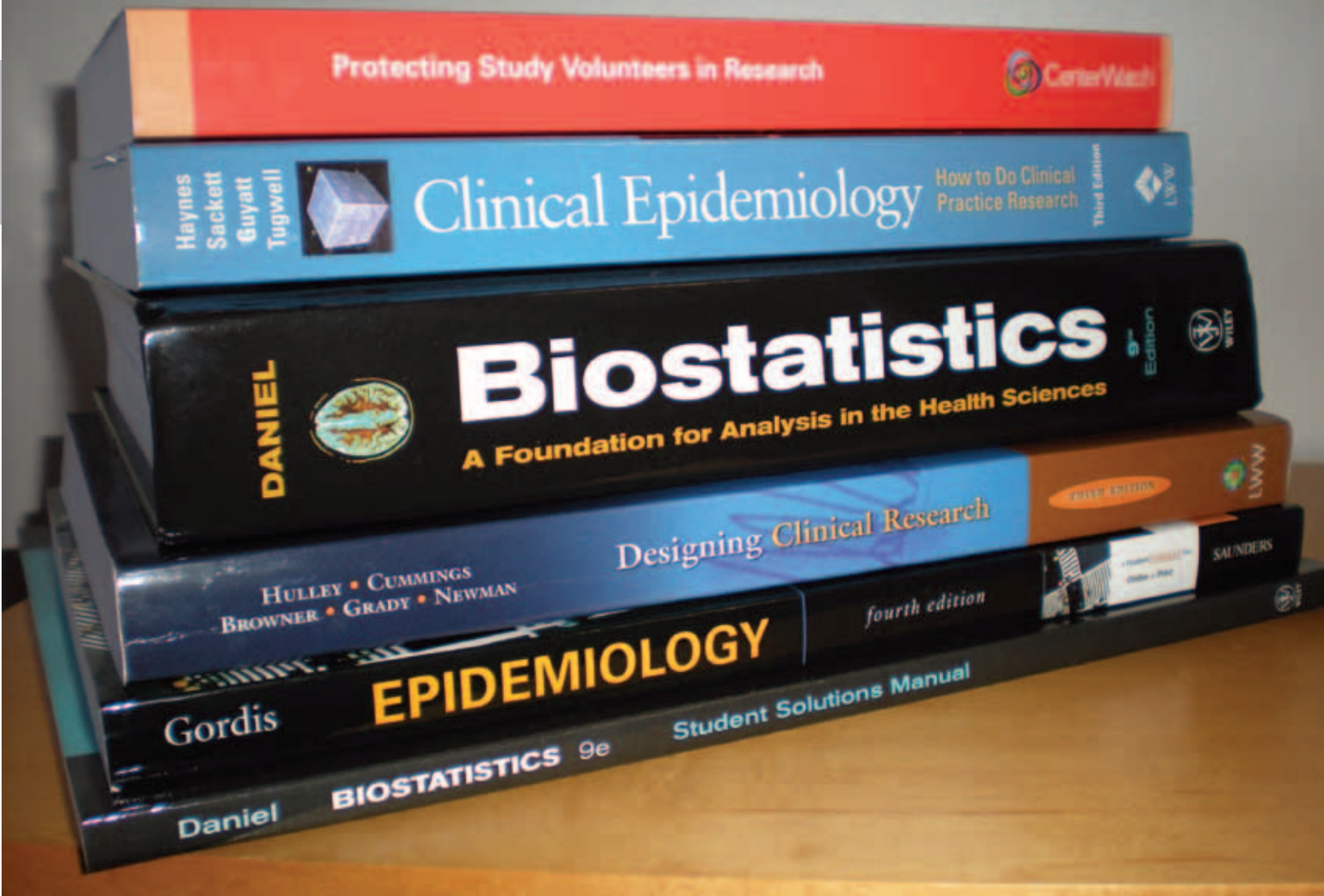
large clinical studies that have the potential to demonstrate definitive results in the area of osteopathic medicine.

A network of trained physician researchers working in partnership with the ORC would substantially increase the impact of our clinical research in developing the evidence base for osteopathic medicine. For example, one major study that could be conducted through the POR fellowship program would look at how DOs in clinical practice treat patients with chronic low back pain. Over a period of five years, the ORC, working with at least 24 physician researchers trained through the CONCORD-PBRN, could anticipate recruiting and collecting data on more than 5,000 subjects. Having a network of trained physician researchers working in concert with the ORC means that no one practice or individual bears an unrealistic burden to recruit subjects for a study.

“Clinical research training, such as that offered through the POR fellowship program is critical for ensuring the validity and reliability of data collected at disparate sites throughout the nation,” said John C. Licciardone, DO, MS, MBA, ORC executive director and executive director of the CONCORD-PBRN network. “This patient-oriented research fellowship not only provides training on the requisite subject areas needed to conduct good clinical research, it also encompasses aspects of clinical research unique to osteopathic medicine and OMT.”

The CONCORD-PBRN has seed funding from the Osteopathic Heritage Foundation, and is seeking additional funding to advance the major objectives of the network and the POR fellowship program to the next level.

Applications for the next class of fellows will be available early in 2012, and the next didactic year will begin in the Fall to coincide with the start of the new academic year. The number of positions that will be funded will depend on whether additional funding is obtained. Institutions can choose to send fellows to the Extended Weekend Seminars at their expense, which would allow more people throughout the osteopathic profession to receive training in this crucial arena.



162 Hours of Clinical Research Training

Topics covered in the POR fellowship program during each annual cycle of six Extended Weekend Seminars include:

- Designing Clinical Research - 36 hours (Based on the book by Stephen B. Hulley et al)
 - Clinical Epidemiology - 46 hours (Based on the book by R. Brian Haynes et al)
 - Using OMT in Research Studies - 12 hours
 - Human Subjects Protection - 8 hours
 - Practice-Based Research Networks - 8 hours
 - Data Management within a PBRN - 8 hours
 - Epidemiology - 8 hours
 - Biostatistics - 8 hours
 - Primary Care Research - 8 hours
 - Psychosocial Aspects of Pain - 6 hours
 - Genetic Factors in Clinical Research- 6 hours
 - Immunology in Clinical Research - 4 hours
 - The Osteopathic Research Center - 4 hours



CONCORD-PBRN & POR Fellowship: Presenting the 2011 Fellows



Abu-Sbaih



Berkowitz



Chitwood



Devine

The Osteopathic Research Center is pleased to announce the 2011 patient-oriented research fellows in conjunction with its Consortium for Collaborative Osteopathic Research Development-Practice Based Research Network (CONCORD-PBRN). The fellows began their year of didactic training in February 2011.

Fellows in the inaugural class, the institutions they represent and their board certifications are:

Reem Abu-Sbaih, DO

New York College of Osteopathic Medicine
at the New York Institute of Technology
Neuromusculoskeletal Medicine

Murray Berkowitz, DO, MA, MS, MPH
Philadelphia College of Osteopathic Medicine -
Georgia Campus
Neuromusculoskeletal Medicine and Preventive Medicine

D'Arcie Chitwood, DO, MPH

University of North Texas Health Science Center -
Texas College of Osteopathic Medicine
Geriatric Fellow/Internal Medicine

William Devine, DO¹

Midwestern University -
Arizona College of Osteopathic Medicine
Family Practice and Neuromusculoskeletal Medicine



Dyer



Heck



Fraix



Heath



Robin Dyer, DO²

Oklahoma State University College of Osteopathic Medicine
Family Practice and Neuromusculoskeletal Medicine

Marcel Fraix, DO

Western University of Health Sciences -
College of Osteopathic Medicine of the Pacific
Physical Medicine and Rehabilitation

Deborah Heath, DO

A.T. Still University of Health Sciences-School of Osteopathic Medicine
Family Practice and Neuromusculoskeletal Medicine

Amber Heck, PhD

Rocky Vista University College of Osteopathic Medicine
Molecular Biology

Stephen Miller, DO, MPH

Lincoln Memorial University-DeBusk College of Osteopathic Medicine
Family Practice

Natalie Nevins, DO, MSHPE³

Downey Regional Medical Center, Downey, Calif.
Family Practice and Neuromusculoskeletal Medicine

Mark Sanders, DO, MPH, JD²

Midwestern University - Chicago College of Osteopathic Medicine
Family Practice



Miller



Nevins

See Fellows, Page 11



Sanders



Treffler



Zajac



Winter



CONCORD-PBRN:

Meet the Network Directors

Three well-known osteopathic physicians have been named directors of the Consortium for Collaborative Osteopathic Research Development: A Practice-Based Research Network (CONCORD-PBRN).

Hollis H. King, DO, PhD, FAAO, serves as the associate director of the network. Dr. King recently left his position as a professor of osteopathic principles and practices at the A.T. Still University School of Osteopathic Medicine in Mesa, Ariz., and is moving to the University of Wisconsin Medical School Department of Family Medicine Residency Program as the osteopathic principles and practices program director. Prior to joining the faculty at ATSU Mesa, he served as the associate executive director of The Osteopathic Research Center. Dr. King is a past-president of the American Academy of Osteopathy.

William Thomas Crow, DO, FAAO, serves as the

eastern regional director of the network. He is the director of the neuromusculoskeletal medicine residency program at Florida Hospital East in Orlando, Fla.

Michael Seffinger, DO, FAAFP, serves as the western regional director for the CONCORD-PBRN. He is the president of the American Academy of Osteopathy, and has served on the Bureau of Osteopathic Clinical Education and Research for the American Osteopathic Association for several years. He is the chair of the neuromusculoskeletal/osteopathic manipulative medicine department at the Western University of Health Sciences-College of Osteopathic Medicine of the Pacific.

In addition to Drs. King, Crow and Seffinger, John C. Licciardone, DO, MS, MBA, serves as executive director of CONCORD-PBRN, and Cathleen Kearns serves as administrative director.



From left: John Licciardone, Hollis King, Cathleen Kearns, Wm. Thomas Crow, and Michael Seffinger. Photo by Tommy Hawkes.

Meet the Advisory Board



The Osteopathic Research Center has named the inaugural members of the advisory board for its Consortium for Collaborative Osteopathic Research Development – Practice Based Research Network (CONCORD PBRN).

Members of the advisory board in addition to the CONCORD-PBRN directors listed on page 10 include:

Grace Brannan, PhD

COM/OPTI Research Directors Representative
Ohio University College of Osteopathic Medicine

Michael B. Clearfield, DO

COM Deans Representative
Touro University College of Osteopathic Medicine

Stanley Grogg, DO

COM/OPTI Research Directors Representative
Oklahoma State University Center for Health Sciences-
College of Osteopathic Medicine

Richard A. Vincent, MBA

Program Advisor
Osteopathic Heritage Foundation

One member from each class of the Patient-Oriented Research (POR) fellowship program will also be named to the advisory board. In addition, other members may

be named to the board over time. The board will convene three times each year - once in Fort Worth, once at the American Osteopathic Association Osteopathic Medical Conference and Exposition and once by teleconference.

Photos courtesy of individual advisory board members and their institutions.



Brannan



Clearfield



Grogg



Vincent

Fellows.....Continued from Page 9

Kevin Treffer, DO²

Kansas City University of Medicine and Biosciences -
College of Osteopathic Medicine
Family Practice and
Neuromusculoskeletal Medicine

A. Scott Winter, MD

University of North Texas Health Science Center -
Texas College of Osteopathic Medicine
Psychiatry

Peter Zajac, DO

Pikeville College School of Osteopathic Medicine
Family Practice

¹ Residency Program Director

² Department Chair

³ Director of Medical Education and Residency Program
Director



ORC to Host International Research Conference in 2012

The Osteopathic Research Center is pleased to announce the international, interprofessional research conference, "Using Manual and Conventional Therapies to Enhance Musculoskeletal Health," which will be held at the Hilton Hotel in downtown Fort Worth April 27-29, 2012. The conference is sponsored by The Osteopathic Research Center, in part through a grant from the Osteopathic Heritage Foundation, and by the University of North Texas Health Science Center - Texas College of Osteopathic Medicine.

Josephine P. Briggs, MD, director of the National Center for Complementary and Alternative Medicine at the National Institutes of Health, will deliver the keynote address at the conference.

In addition to Dr. Briggs, the following speakers have committed to speaking at the conference:

Gunnar Brolinson, DO

Associate Dean for Clinical Research
Edward Via Virginia College of Osteopathic Medicine
and Team Physician
Virginia Polytechnic Institute and State University

Gert Bronfort, DC, PhD

Vice President of Research
Wolfe-Harris Center for Clinical Studies
Northwestern Health Sciences University

Leonard Calabrese, DO

Section Head Rheumatologic and Immunologic Diseases
and Classen Chair in Osteopathic Research and Education
Cleveland Clinic

Jacek Cholewicki, PhD

Professor, Surgical Specialties
Michigan State University College of Osteopathic Medicine

Brian Clark, PhD

Director, Institute for Neuromusculoskeletal Research
Ohio University Heritage College of Osteopathic Medicine

Julie Fritz, PT, PhD

Associate Professor of Physical Therapy
University of Utah College of Health Science

Robert Gatchel, PhD

Chair, Department of Psychology
University of Texas-Arlington
and Director of Biopsychosocial Research
The Osteopathic Research Center

Steven George, PT, PhD

Associate Professor and Assistant Department Chair
for Physical Therapy
Center for Pain Research and Behavioral Health
University of Florida-Gainesville

Lisa Hodge, PhD

Osteopathic Heritage Basic Science Chair
The Osteopathic Research Center
University of North Texas Health Science Center

Gregory Kawchuk, DC, MSc, PhD

Associate Professor, Department of Physical Therapy
University of Alberta
Edmonton, Canada

John Licciardone, DO, MS, MBA

Associate Dean for Clinical Research
Texas College of Osteopathic Medicine
and Executive Director
The Osteopathic Research Center
University of North Texas Health Science Center

Joel Pickar, DC, PhD

Professor of Neuroscience
Palmer Center for Chiropractic Research
Palmer College of Chiropractic, Davenport, Iowa

Michael Schneider, DC, PhD

Assistant Professor of Physical Therapy
University of Pittsburgh



Josephine P. Briggs, MD, director of the National Center for Complementary and Alternative Medicine at the National Institutes of Health, will deliver the keynote address at the international research conference, “Using Manual and Conventional Therapies to Enhance Musculoskeletal Health,” which will be held April 27-29, 2012 at the Hilton Hotel, Fort Worth. She is shown here speaking at Research Appreciation Day in March 2009 at the University of North Texas Health Science Center. Photo by Tommy Hawkes.

Florian Schwerla, MSc, DO (Eur)
German Academy of Osteopathy

Richard Snow, DO, MPH
Medical Director
OhioHealth

John Triano, DC, PhD
Dean, Graduate Education and Research Programs
Canadian Memorial Chiropractic College

Steven Vogel, DO (Eur)
Vice Principal for Research and Quality
British School of Osteopathy
London, England

A highlight of the conference will be the presentation of the inaugural Murray Goldstein, DO Lecture. Dr. Goldstein served as a former director of the

National Institute of Neurological Disorders and Stroke at the National Institutes of Health. He also served as an assistant surgeon general in the United States Public Health Service, obtaining the rank of rear admiral. He was the first osteopathic physician to be appointed a commissioned medical officer in the uniformed services of the United States, and the first osteopathic medical officer to achieve star rank. Dr. Goldstein has long been an advocate of conducting scientifically rigorous osteopathic research. For more background on Dr. Goldstein and the lecture, please see page 14.

“I am delighted to have such a large number of leading researchers in the field of musculoskeletal health presenting at our conference,” said Dr. Licciardone. “By putting together a conference that assembles some of the best researchers in this field, the ORC is helping to advance musculoskeletal health care for patients both nationally and internationally.”



Lecture Created to Honor Murray Goldstein, DO, MPH

The Osteopathic Research Center has created the Murray Goldstein, DO Lecture in recognition of Dr. Goldstein's many accomplishments throughout his career that significantly advanced the osteopathic profession and fostered an environment for the conduct of scientifically rigorous osteopathic research.

The lecture will be presented during the "Using Manual and Conventional Therapies to Enhance Musculoskeletal Health" conference that is scheduled to be held April 27-29, 2012 at the Hilton Hotel in downtown Fort Worth, Texas.

Dr. Goldstein has served in many important roles throughout his career during which time he has helped to raise the visibility of osteopathic physicians.

He served as the former director and chief operating officer of United Cerebral Palsy from 1993-2003. Prior to that appointment, Dr. Goldstein served as director of the National Institute of Neurological Disorders and Stroke (NINDS) at the National Institutes of Health from December 23, 1982 to October 1, 1993. He was one of the 11 directors of NINDS to date, and the institute reached several milestones under his leadership, including the restructuring and expansion of several of the institute's programs to reflect major areas of research interest in the mid-1980s.

Dr. Goldstein was the first osteopathic physician to be appointed as a commissioned medical officer in the uniformed services of the United States when he was commissioned as a medical officer in the U.S. Public Health Service in 1953. Several years later, he was named an assistant surgeon general in the U.S. Public Health Service with the rank of Rear Admiral, a position he held from 1981-1993.

He has long been an advocate of developing a strong evidence base for osteopathic medicine, specifically for osteopathic manipulation. Dr. Goldstein published an editorial in the *Journal of the American Osteopathic Association* in August 1997 titled, "A Challenge to the Profession: Initiate Evidence-Based Osteopathic Medicine Now," which called on the profession to provide an evidence base for the distinctive aspects of osteopathic medical care. He subsequently served on the committee to develop a national center of excellence for osteopathic manipulation research. The work of this committee culminated in

the founding of The Osteopathic Research Center as the profession-wide research center dedicated to developing the evidence base for osteopathic medicine in January 2002.

Dr. Goldstein also served as a member of the National Center for Complementary and Alternative Medicine's Advisory Council from 2002-2005, and as a member of the Commission on Alternative Health Care and the U.S. Olympic Committee on Sports Medicine.

He has served on numerous advisory boards, committees and councils throughout his career. He is a scientific member of the board of directors of four national health organizations, and is the past president of the Academy of Medicine in Washington, D.C.

Dr. Goldstein served in the U.S. Army during World War II, and received the Purple Heart and the Silver Star for his service. He earned his doctor of osteopathic medicine degree in 1950 from the Des Moines University College of Osteopathic Medicine. He completed a fellowship in neurology at the Mayo Clinic in Rochester, Minn., and earned a master of public health degree from the University of California School of Public Health at Berkeley, Calif. He is board certified in public health and preventive medicine by the American Osteopathic Board of Preventive Medicine, and was a founding member and past president of the American Osteopathic College of Occupational and Preventive Medicine.

He is recognized internationally as a leader in research on cerebrovascular disorders and on disorders of the developing brain, having authored 51 publications in books, government publications and refereed scientific journals.

"It is our distinct pleasure to honor Murray's many accomplishments to osteopathic medicine and to osteopathic research through the creation of this lecture," said John C. Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center.



Photo provided by Murray Goldstein

AOA Low Back Pain Guidelines: ORC Provides Resource



A 2005 systematic review and meta-analysis conducted by John C. Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center, Angela Brimhall and Linda King, served as a primary resource for the recently established “American Osteopathic Association Guideline for Osteopathic Manipulative Treatment (OMT) for Patients with Low Back Pain” that was included on the Agency for Healthcare Research and Quality National Guideline Clearinghouse website in 2010. The guideline was also published in the *Journal of the American Osteopathic Association*.

The committee that authored the guideline included: Michael Seffinger, DO, FAAFP (Chair); Boyd Buser, DO; John Licciardone, DO, MS, MBA, FACPM; James Lipton, DO, FAAO; John Lynch, DO, MPH; Michael Patterson, PhD; Richard Snow, DO, MPH; and Monte Troutman, DO.

Funding to conduct an updated systematic review and meta-analysis was provided to the ORC by the American Osteopathic Association in 2007.

The guidelines were reviewed and validated by the American Osteopathic Association (AOA) Board of Trustees, Bureau of Osteopathic Specialists, Bureau of Osteopathic Clinical Education and Research, Council on Research, Bureau of Scientific Affairs and Public Health, Bureau of Socio-economic Affairs, and the Department of Quality and Research, as well as the American College of Osteopathic Family Physicians (ACOFP), American Academy of Osteopathy (AAO), American College of Osteopathic Internists (ACOI) and the AOA House of Delegates.

The guideline may be viewed on the National Guideline Clearinghouse website at <http://www.guideline.gov/content.aspx?id=15271&search=american+osteopathic+association>.

A complete copy of the guideline may also be viewed on the AOA website at <http://www.do-online.org/pdf/AOALowBackPainClinicalPracticeGuidelines.pdf>.

The National Guideline Clearinghouse is a public-access database of evidence-based clinical practice guidelines.



Photo by Jeremy Enlow.



ORC Research Published in AJOG and on NCCAM Website

A study published by the *American Journal of Obstetrics and Gynecology* in 2010, demonstrates that osteopathic manipulative treatment slows or halts the deterioration of back-specific functioning in the third trimester of pregnancy. The study was led by principal investigator, John C. Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center.

The Phase II randomized controlled trial of 144 subjects showed that women in the usual obstetric care+osteopathic manipulative treatment group reported less deterioration of back-specific functioning on the Roland-Morris Disability Scale than women in the usual obstetric care+sham ultrasound and the usual obstetric care only groups when these groups were compared using an intention-to-treat analysis. This study is the first randomized, placebo-controlled trial to explore the potential effects of osteopathic manipulative treatment during the third trimester of pregnancy.

In the study, conducted by The Osteopathic Research Center in conjunction with the Department of Obstetrics and Gynecology and the Department of Osteopathic Manipulative Medicine at the University of North Texas Health Science Center in Fort Worth, Texas, women were enrolled between the 28th and 30th week of pregnancy. After being randomized to one of the three treatment groups, the women in the usual obstetric care+osteopathic manipulative treatment and usual obstetric care+sham ultrasound groups received treatments immediately following each of their third trimester prenatal visits. Women were excluded or dropped from the study if they were determined to be at high risk by their obstetrician. The median age for women included in the study was 24 years.

Usual obstetric care was defined in this study as the conventional prenatal care received during pregnancy. Osteopathic manipulative treatment is generally considered a complementary treatment that is not included as part of routine prenatal care.

“This study is exciting because pregnant women frequently experience a negative impact on their ability to function and perform tasks related to daily living as their pregnancy progresses,” said Dr. Licciardone. “Because pregnant women are limited in the medications they can take for pain, osteopathic manipulative treatment offers a way to improve back functioning

and decrease pain in the third trimester of pregnancy, when many women experience disability.”

“What is also interesting about this study is that osteopathic physicians who provide obstetric care can potentially include osteopathic manipulative treatment as part of their prenatal care for patients,” Licciardone said. “For more than 100 years, osteopathic physicians who have treated pregnant women using osteopathic manipulation have claimed that their patients have less pain, better functioning and improved delivery outcomes. This study may be the first step in confirming the clinical success of osteopathic physicians in this area of medicine.”

Dr. Licciardone added, “If osteopathic obstetricians view this study as the first step in developing a strong evidence base to support the use of OMT to improve back functioning and pain in the third trimester of pregnancy, this study could have a significant clinical impact on prenatal care, and it could have important economic implications for treating common back-related symptoms and functional disabilities in late pregnancy.”

The full text of the article is available online at <http://www.ajog.org/>.

Related to the publication in AJOG, these research efforts garnered national recognition when the article was featured in a Research Spotlight on the National Institutes of Health-National Center for Complementary and Alternative Medicine (NIH-NCCAM) website in 2010.

The article, titled “Osteopathic Manipulative Treatment of Back Pain and Related Symptoms During Pregnancy: A Randomized Controlled Trial,” was authored by John C. Licciardone, DO, MS, MBA, Steve Buchanan, DO, Kendi L. Hensel, DO, PhD, Hollis H. King, DO, PhD, Kimberly G. Fulda, DrPH, and Scott T. Stoll, DO, PhD.

Dr. Licciardone noted that outcomes were statistically significant for improved low back functioning in the OMT group. “The results also showed a statistical trend toward significant pain reduction in the group that received OMT, but pain remained the same or increased in the other groups.”

“Having our research included in a high impact specialty journal and featured on the NCCAM website speaks to the caliber of research being conducted at The Osteopathic Research Center,” Dr. Licciardone concluded.



RESEARCH

www.AJOG.org

OBSTETRICS

Osteopathic manipulative treatment of back pain and related symptoms during pregnancy: a randomized controlled trial

John C. Licciardone, DO, MS, MBA; Steve Buchanan, DO; Kendi L. Hensel, DO, PhD; Hollis H. King, DO, PhD; Kimberly G. Fulda, DrPH; Scott T. Stoll, DO, PhD

OBJECTIVE: To study osteopathic manipulative treatment of back pain and related symptoms during the third trimester of pregnancy.

STUDY DESIGN: A randomized, placebo-controlled trial was conducted to compare usual obstetric care and osteopathic manipulative treatment, usual obstetric care and sham ultrasound treatment, and usual obstetric care only. Outcomes included average pain levels and the Roland-Morris Disability Questionnaire to assess back-specific functioning.

RESULTS: Intention-to-treat analyses included 144 subjects. The Roland-Morris Disability Questionnaire scores worsened during pregnancy; however, back-specific functioning deteriorated significantly less in the usual obstetric care and osteopathic manipulative treatment group (effect size, 0.72; 95% confidence interval, 0.31–1.14; $P =$

.001 vs usual obstetric care only; and effect size, 0.35; 95% confidence interval, –0.06 to 0.76; $P = .09$ vs usual obstetric care and sham ultrasound treatment). During pregnancy, back pain decreased in the usual obstetric care and osteopathic manipulative treatment group, remained unchanged in the usual obstetric care and sham ultrasound treatment group, and increased in the usual obstetric care only group, although no between-group differences achieved statistical significance.

CONCLUSION: Back-specific functioning deteriorated significantly less in the usual obstetric care and osteopathic manipulative treatment group (effect size, 0.72; 95% confidence interval, 0.31–1.14; $P =$

Key words: back pain, pregnancy, osteopathic manipulative treatment, randomized controlled trial.

Previous studies have found that a majority of pregnant women report low back pain during pregnancy.^{1,4} Other common neuromusculoskeletal problems during pregnancy include pubic pain, hip pain, knee pain, leg cramps, carpal tunnel syndrome, and DeQuervain's tenosynovitis.^{5,6} When considering such neuromusculoskeletal aspects of pregnancy, virtually all women experience symptoms during pregnancy, with an estimated one quarter having at least temporary disability.⁷ Moreover, pregnancy-related back pain is

often associated with sleep and may affect activities of daily quality of life.^{3,5,8} Complementary and alternative (CAM) therapies may be as treatment options for symptoms during pregnancy, the real or unknown risks in many drug therapies. A major concern for both pregnant women and prenatal health providers alike report that they consider using CAM therapies for pain during pregnancy, parti-

From The Osteopathic Research Center (Drs Licciardone, Hensel, King, and Stoll) Department of Obstetrics and Gynecology (Dr Buchanan), and the Primary Care Institute (Dr Fulda), University of North Texas Health Science Center, Fort Worth. Presented at the Fourth International Symposium on Advances in Osteopathic Research, Osteopathy to Association, Schlangenbad, Wiesbaden, Germany, Oct. 5, 2007 (Dr Licciardone); 76th Annual Conference of the American College of Obstetricians and Gynecologists, Tucson, AZ, March 16–19, 2009 (Dr Hensel), and the Annual Convocation of the Alpha Academy of Osteopathy, Little Rock, AR, March 25–29, 2009 (Dr Hensel). Received Feb. 4, 2009; revised May 1, 2009; accepted July 20, 2009.

Reprints: John C. Licciardone, DO, MS, MBA, 5500 Camp Bowie Boulevard, Fort Worth, TX 76107. licciard@uhtc.unt.edu.

This research was supported in part by Grants from the Osteopathic Heritage Foundation, National Center for Complementary and Alternative Medicine at the National Institutes of Health (Grant number N24AT002422).

0002-9378/09/36-00 • © 2010 Mosby, Inc. All rights reserved. • doi: 10.1016/j.ajog.2009.07.036

Preliminary Trial Finds Possible Benefits of Osteopathic Treatment for Back Pain During the Third Trimester of Pregnancy (NCCAM Research Brief)

NCCAM National Center for Complementary and Alternative Medicine

Home Health Info Research Grants Training News and Events About NCCAM

Results Sponsored Research Research at NCCAM Clinical Trials Policies FY 2009 Awards

research spotlight

Preliminary Trial Finds Possible Benefits of Osteopathic Treatment for Back Pain During the Third Trimester of Pregnancy

Most pregnant women experience low-back pain, which often is associated with sleep disturbance and can affect daily activities. Because of possible risks associated with many pain medications, pregnant women and their prenatal care providers often consider using complementary and alternative medicine (CAM) therapies, such as massage and spinal manipulation, for back pain. In a recent NCCAM-funded study, researchers at the University of North Texas investigated the effects of osteopathic manipulative treatment on back pain during the third trimester of pregnancy.

In this exploratory trial, 144 women in weeks 28–30 of pregnancy received usual obstetrical care only, usual care plus a systematic osteopathic manipulative treatment protocol provided by an osteopathic specialist, or usual care plus a sham treatment in which the specialist applied pressure with a nonfunctional ultrasound instrument. At each of seven 30-minute weekly sessions, researchers measured back-specific functioning (Roland-Morris Disability Questionnaire) and level of back pain (an 11-point scale). At the end of 7 weeks, back-specific functioning deteriorated significantly less in the osteopathic manipulative treatment group than in the other two groups. Average level of back pain decreased in the osteopathic manipulative treatment group, remained unchanged in the sham ultrasound group, and increased in the usual-care-only group; however, the between-group differences were not statistically significant.

Although the results of this preliminary study suggest that osteopathic manipulation may have benefits for back-specific functioning, but not pain, in the third trimester of pregnancy, larger trials are needed before definitive conclusions can be drawn about its efficacy or effectiveness for this purpose. An NCCAM-funded study of the physiological and clinical effects of osteopathic manipulative treatment during pregnancy is under way at the University of North Texas.

As with any CAM therapy, pregnant women should consult their health care provider before using osteopathic treatment.

Reference

Licciardone JC, Buchanan S, Hensel KL, et al. Osteopathic manipulative treatment of back pain and related symptoms during pregnancy: a randomized controlled trial. *American Journal of Obstetrics and Gynecology*, 2010;202(1):43.e1–43.e8.

Additional Resource

• Spinal Manipulation for Low-Back Pain

http://www.nih.gov/news/health/09-23-09/0902210.htm[4/13/2010 12:36:13 PM]



OSTEOSURV 2010 Enters Data Analysis Phase

Under the auspices of its health services and policy research unit, The Osteopathic Research Center has completed fielding OSTEOSURV 2010, a national 1,000 respondent, random digit-dial telephone survey that assessed such topics as awareness of osteopathic medicine, the use of osteopathic physicians, the extent of patient-centered care and opinions on health care reform. The survey was conducted using trained interviewers at the University of North Texas Survey Research Center in Denton, Texas.

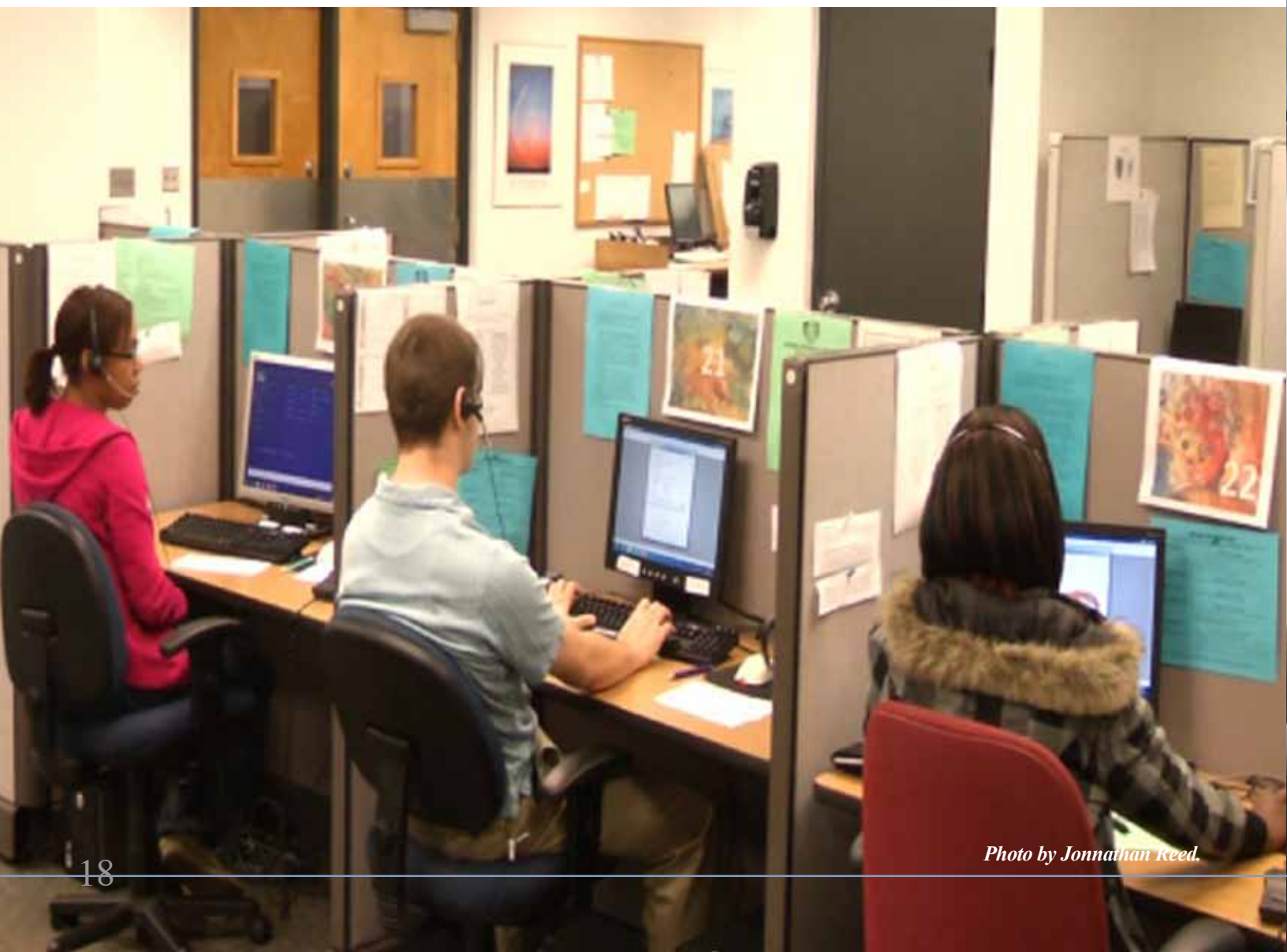
OSTEOSURV 2010 is the third in a series of nationwide surveys that have been conducted by John C. Licciardone, DO, MS, MBA, executive director of the ORC. The survey is conducted to gauge the change in

the public's awareness and use of osteopathic physicians. Current topics related to health care and health policy are also included in each survey.

Working closely with the Survey Research Center, 1,000 telephone interviews were completed. The survey was approximately 15 minutes in length.

ORC leaders have received the data file from the telephone interviews from the Survey Research Center, which is under the direction of Paul Ruggiere, PhD. Data will be analyzed, and preliminary results from the survey will be available later this year.

The survey was funded through a grant received from the Osteopathic Heritage Foundation.



OSTEOPATHIC Trial in Data-Analysis Phase



The Osteopathic Research Center is currently analyzing data from the OSTEOPATHic Health outcomes In Chronic low back pain (OSTEOPATHIC) Trial. This randomized controlled trial, primarily funded through a K24 Midcareer Investigator Award from the National Institutes of Health-National Center for Complementary and Alternative Medicine, is one of the largest clinical trials conducted on any type of spinal manipulation, and the largest trial conducted to date on osteopathic manipulative treatment.

Led by principal investigator John C. Licciardone, DO, MS, MBA, the executive director and Osteopathic Heritage clinical research chair of The Osteopathic Research Center, the research team enrolled 455 subjects in the study. When the Data and Safety Monitoring Board (DSMB) met last Fall, its members recommended ending recruitment for the study. The trial's status is now considered "completed" by ClinicalTrials.gov.

"This is an exciting moment for the ORC and for the profession," Dr. Licciardone said. "I am delighted that the ORC was able to accomplish this research with the support of the National Institutes of Health-National Center for Complementary and Alternative Medicine." The study was also supported by a grant to the ORC from the Osteopathic Heritage Foundation.

He added, "We look forward to completing the analysis of data from this study, and to sharing the results with the profession and with others interested in using manipulation as a treatment for chronic low back pain."

"Because chronic low back pain is such a costly and often difficult condition to treat, I anticipate that people may be very pleased to see the results from this study," Dr. Licciardone said.

Data from the study will be presented at the international, interprofessional research conference, "Using Manual and Conventional Therapies to Enhance Musculoskeletal Health, which will be held April 27-29, 2012 in Fort Worth, Texas.



Hodge Continues to Expand Research on Immune System

Lisa Hodge, PhD, the Osteopathic Heritage basic science research chair at The Osteopathic Research Center, presented her research, “Lymphatic Pump Manipulation Mobilizes Inflammatory Mediators into Thoracic and Intestinal Duct Lymph” and “Lymphatic Pump Treatment Reduces Pulmonary Tumors in the Rat” at the *Eighth International Conference on Advances in Osteopathic Research (ICAOR)*. The conference was held in 2010 in Milan, Italy.

Dr. Hodge also served as a session chair for the international research conference, and as a delegate for the open forum to advance international professional collaborations.

Her work to document the effects of lymphatic pump technique on the immune system in pneumonia models, and in cancer models, has been recognized internationally.

In addition to these presentations, Dr. Hodge recently published data from her research in *Lymphatic Research and Biology* (Citation: Hodge LM, Bearden MK, Schander A, Huff JB, Williams AG Jr, King HH, Downey HF. Abdominal Lymphatic Pump Treatment Mobilizes Leukocytes from the Gastrointestinal Associated Lymphoid Tissue into Lymph. *Lymphatic Research and Biology* 2010; 8(2):103-10).

At The Osteopathic Research Center, Dr. Hodge also works closely with clinician researchers, including John C. Licciardone, DO, MS, MBA, executive director of the ORC, on the “Mechanisms of Action of Osteopathic Manipulative Treatment in Chronic Low Back Pain” grant that was funded by the American Osteopathic Association in 2008. This project assesses the role of immunologic biomarkers in patients with chronic low back pain.

Dr. Hodge and H. Fred Downey, PhD, regents professor, were also invited to submit a mini-review on lymphatic pump technique and the immune system to *Experimental Biology and Medicine*. The review was published in the August 2011 issue of the journal.

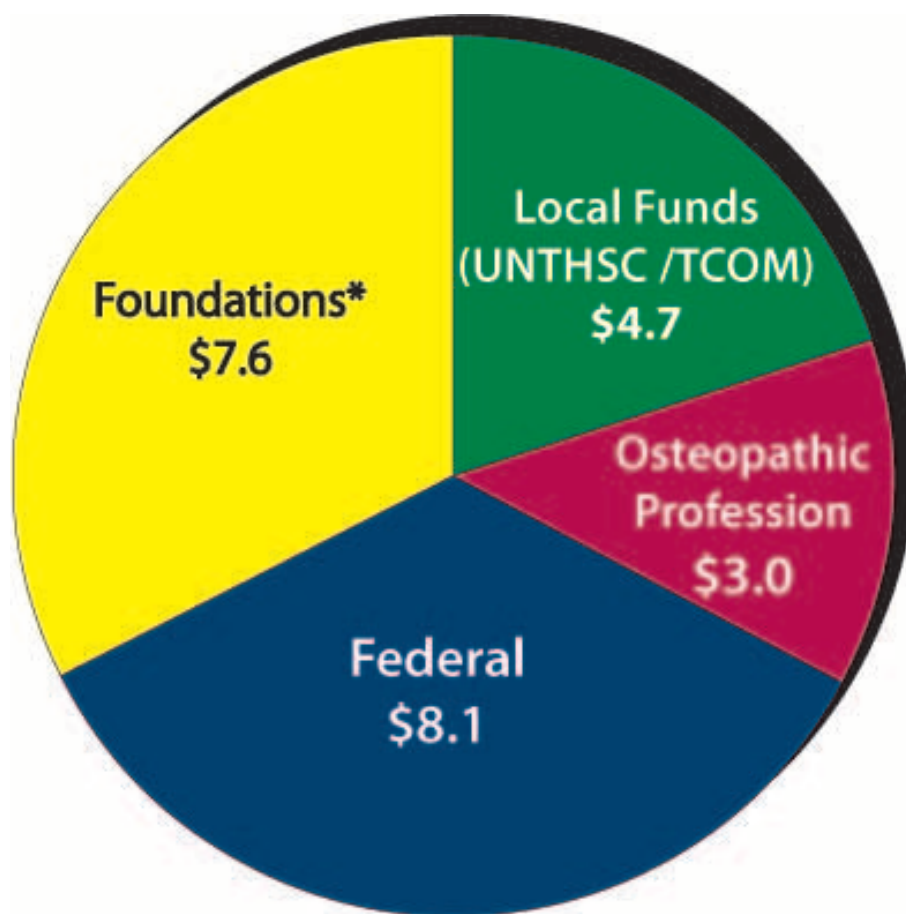
ORC Cumulative Funding: Inception through 2010



The Osteopathic Research Center Cumulative Research Funding 2002-2010

\$23.4 Million

(Subtotals in millions of dollars according to funding source)



* The Osteopathic Heritage Foundation has contributed more than \$8.8 million to UNTHSC since 2001, but only funding specifically for ORC infrastructure or to support ORC research projects is included here. OHF grants represent \$6.7 of the foundation funding included in this chart.

UNTHSC is the University of North Texas Health Science Center; TCOM is the Texas College of Osteopathic Medicine.



Two ORC Researchers Receive AOA Grants for 2011

Two researchers at The Osteopathic Research Center were awarded research grants from the American Osteopathic Association. Funding for both grants began September 1, 2010.

John C. Licciardone, DO, MS, MBA, received a one year, \$50,000 grant for a project titled, "Cost-Effectiveness of Osteopathic Health Care: A National Study Based on the Medical Expenditure Panel Survey (MEPS). Fernando Wilson, PhD, assistant professor of health management and policy in the School of Public Health at the University of North Texas Health Science Center in Fort Worth, Texas, serves as the health economist for the project, while Karan Singh, PhD, the director of biostatistics for the ORC, serves as the consulting biostatistician for the project, and Cathleen Kearns, administrative director of the ORC, serves as the research associate for the project. Students will be selected to serve as research fellows for the project.

This study seeks to use the five-year MEPS database from 2002 through 2006 to corroborate and extend the general findings observed with regard to osteopathic ambulatory medical care in the contemporary National Ambulatory Medical Care Survey (NAMCS) database and to assess patient-derived measures (including patient satisfaction with care) not available in NAMCS; assess the cost-effectiveness of osteopathic health care (including OMT) for low back pain as the prototypical symptom wherein distinctive aspects of osteopathic practice are known to exist; assess the cost-effectiveness of osteopathic health care (including OMT) for other common presenting symptoms, including headache, depression, and neck symptoms; and assess the cost-effectiveness of osteopathic health care (including OMT) for common medical conditions, including upper respiratory infection, hypertension, and diabetes mellitus.

Fernando Wilson, PhD, (left) and John C. Licciardone, DO, MS, MBA (right) discuss the MEPS project. Photo by Cathleen Kearns.



Lisa Hodge, PhD, the ORC's Osteopathic Heritage basic science research chair, received a two-year, \$94,734 grant titled, "Lymphatic Pump Treatment on the Clearance of Influenza and Influenza Complicated by Bacterial Pneumonia."

This project continues to expand her work looking at the effect of lymphatic pump treatment on the immune system, and expands the work she has previously done relative to pneumonia. Photo by Jeremy Enlow.





Researchers Participate in NCCAM Workshop

Two researchers from The Osteopathic Research Center participated in the “Deconstructing Back Pain” workshop May 2010 in Rockville, Md. The workshop was convened by the National Institutes of Health - National Center for Complementary and Alternative Medicine (NIH-NCCAM).

Robert J. Gatchel, PhD, the ORC’s director of biopsychosocial research, and John C. Licciardone, DO, MS, MBA, executive director of the ORC, were invited to participate in this two-day workshop with leading back pain researchers from across the country.

The goals of the workshop were to identify what types of future studies are needed to better understand chronic back pain; assess new interventions and management strategies for back pain as a chronic condition; evaluate the utility of existing data sets and ongoing cohort studies for future research on chronic

back pain; and determine what study designs should be utilized to look at the natural history of back pain.

Dr. Gatchel chaired a session on the psychological components of chronic back pain. His session included presenter Dennis Turk, PhD, from the University of Washington, and discussant Robert Kerns, PhD, from the VA Connecticut Healthcare System.

Dr. Licciardone served as a discussant for the session on studies needed to develop a research characterization system for chronic back pain, which was chaired by Rick Deyo, MD, from the Oregon Health and Science University.

To see the full agenda from the meeting, please visit the NCCAM website at http://nccam.nih.gov/news/events/backpain_agenda.htm. To view the video-cast of the workshop, please visit <http://videocast.nih.gov/summary.asp?file=15900>.



Robert J. Gatchel, PhD, (left) and John C. Licciardone, DO, MS, MBA (right) discuss the NCCAM workshop. Photo by Jeremy Enlow.

Licciardone Receives Prestigious Watson Award



John C. Licciardone, DO, MS, MBA, executive director of the ORC, with Jane Watson Cunningham, daughter of J.O. Watson, DO. Photo courtesy of the Ohio Osteopathic Association.

John C. Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center, delivered the J.O. Watson Memorial Lecture Award during the Ohio Osteopathic Symposium April 29-May 2, 2010 in Columbus, Ohio.

The J.O. Watson Award, presented annually at the Ohio Osteopathic Symposium, recognizes individuals who have advanced osteopathic healthcare, osteopathic medical education or research through their educational or scientific efforts.

Dr. Licciardone's presentation focused on "The Rational Positioning, Promotion and Revitalization of Osteopathic Medicine."

Recipients of the J.O. Watson Award are selected by a committee composed of representatives of the Osteopathic Heritage Foundation and the Ohio Osteopathic Foundation. Osteopathic Heritage Foundation representatives on the committee include the board chairman, the president/CEO, and an osteopathic

physician selected from the board of directors. Ohio Osteopathic Foundation representatives on the committee include the board chairman, the president/CEO and an osteopathic physician selected from the board of trustees.

"Dr. Watson was a visionary leader within the osteopathic profession, both in Ohio and nationally," said Dr. Licciardone. "It was a tremendous honor to be selected as the 2010 J.O. Watson Award recipient."

Past recipients of the award include: Frances Daly, PhD, Michael M. Patterson, PhD, Richard Vincent, MBA, John B. Crosby, JD, George Thomas, DO, John P. Sevastos, DO, Karen J. Nichols, DO, Norman Gevitz, PhD, Benjamin Cohen, DO and Douglas L. Wood, DO, PhD.

To learn more about the J.O. Watson Award, please visit the Ohio Osteopathic Association website at http://associationdatabase.com/aws/OOSA/pt/sd/news_article/15610/_self/layout_details/false.



OHF & UNTHSC Award Four-Year Renewal Funding to ORC

The Osteopathic Heritage Foundation has awarded The Osteopathic Research Center \$2 million over four years in a grant to continue to build its research infrastructure, and to advance several major projects. The University of North Texas Health Science Center and the Texas College of Osteopathic Medicine committed \$1 million in matching funds for the grant, which started January 1, 2010 and ends December 31, 2013.

Through the grant titled, Partnership to Enhance the Evidence for Osteopathic Medicine, the ORC will:

- Maintain and expand clinical research under the leadership of John C. Licciardone, DO, MS, MBA, the executive director of the ORC, and the Osteopathic Heritage clinical research chair;
- Maintain and expand basic science research under the leadership of Lisa Hodge, PhD, the ORC's Osteopathic Heritage basic science research chair;
- Fully implement and expand the emerging health services and policy research unit, which includes conducting OSTEOSURV;
- Develop and implement an osteopathic patient-oriented research training program to establish a cadre of osteopathic researchers to conduct clinical research within the framework of the Consortium for Collaborative Osteopathic Research Development (CONCORD) and its affiliated primary care Practice-Based Research Network (PBRN) for osteopathic medicine. This initiative aims to provide a mechanism for practicing osteopathic physicians to acquire clinical research training at no cost and minimal disruption to their clinical practices, and to then engage them in substantive research using their clinical practice patients;
- Develop, implement, and host an international, interprofessional musculoskeletal research conference series. This initiative aims to

revitalize osteopathic research conferencing by providing a three-day event in the Dallas-Fort Worth metroplex that is aimed at national and international researchers in osteopathic medicine and related fields. The inaugural conference will be held April 27-29, 2012 at the Hilton Hotel in downtown Fort Worth, Texas. For more information about the conference, please see pages 12-14;

- Provide consultation to OHF and other relevant organizations in establishing another center within the United States to conduct osteopathic research. The leadership of the ORC will provide consultation in identifying promising candidate sites for the center, develop the framework for and review candidate applications, make recommendations on site selection, and assist the new center in start-up activities, as requested by OHF.



Osteopathic Heritage Foundations

The current centerpiece of the ORC's focus on clinical research is the OSTEOPATHic Health outcomes In Chronic low back pain (OSTEOPATHIC) Trial, a study of 455 subjects that compares osteopathic manipulative treatment (OMT), ultrasound therapy and placebo control treatment for chronic low back pain. Subject visits for this trial ended early in 2011. Results from the study will be presented at the "Using Manual and Conventional Therapies to Enhance Musculoskeletal Health," international research conference slated to be held April 27-29, 2012.



in Fort Worth, Texas. The ORC continues to seek funding to enhance this area of research. Clinical research will also be significantly enhanced through the CONCORD-PBRN. To learn more about CONCORD-PBRN, please see pages 6-11. John Licciardone, DO, MS, MBA, leads the clinical research agenda through his role as the ORC's executive director and as the Osteopathic Heritage clinical research chair.

Development of mechanistic research through the ORC's basic science unit continues to advance through the work of Lisa Hodge, PhD, who serves as the Osteopathic Heritage basic science chair. One aspect of Dr. Hodge's work assesses the effect of OMT on the immune system in specific conditions and diseases such as respiratory infections and cancer. She also evaluates the impact of OMT on the immune system by studying the response of cytokines and other biomarkers in the OSTEOPATHIC Trial.

In addition to its efforts in clinical and mechanistic research, the ORC has recently expanded the scope of its research by launching its health services and policy unit. "For years, people have been saying that osteopathic distinctiveness is more than just OMT," said Dr. Licciardone. "Through our health services and policy unit, we now have the opportunity to conduct research that looks at distinctive patterns of osteopathic medical practice."

One of the first major projects that was undertaken through this unit of the ORC was OSTEOSURV 2010, a national 1,000 respondent, random digit-dial survey to assess such topics as awareness of osteopathic medicine, the use of osteopathic physicians, the extent of patient-centered care and opinions on health care reform. The survey was conducted under the auspices of the ORC, using trained interviewers at the University of North Texas Survey Research Center in Denton, Texas. The ORC will analyze data from this survey later this year. Please see page 18 for more information about this project. Another recent health services and policy project that has been conducted through



the ORC includes, "A National Study of Ambulatory Medical Care Provided by Osteopathic Physicians: 2002 to 2006." Data analyses were completed last year through a \$152,610 grant from OHF. An article discussing the results of that study has been submitted for publication, and is in the review process.

Richard Vincent, president and chief executive officer of the Osteopathic Heritage Foundation, said, "We are pleased to award this renewal funding to the ORC. I am extremely proud of the research that has come out of the ORC. We have been very pleased and proud of our association with Texas."

Dr. Licciardone said, "We are deeply grateful to the Osteopathic Heritage Foundation for its continued support of the ORC and its broad research agenda. OHF has changed the face of osteopathic research not just at the ORC, but across the country with its financial support that has expanded the research that is so critical to the osteopathic profession's long-term ability to survive and thrive in an evidence-based world."



ORC News Briefs

DIRECTORS APPOINTED TO EDITORIAL GROUPS

Two directors from The Osteopathic Research Center were recently named to journal editorial groups.

Robert J. Gatchel, PhD, director of biopsychosocial research for the ORC has been named editor of the *Journal of Applied Biobehavioral Research*. John C. Licciardone, DO, MS, MBA, executive director of the ORC, will serve on the editorial board of the same journal.

Dr. Licciardone has also been named to the editorial committee for the *International Journal of Osteopathic Medicine*.

GATCHEL PUBLISHES ARTICLE IN SPINE

Dr. Gatchel served as one of the authors of an article recently published in *Spine* titled, "The Lack of Association Between Changes in Functional Outcomes and Work Retention in a Chronic Disabling Occupational Spinal Disorder Population: Implications for the Minimum Clinically Important Difference." The article, published in the March 2011 issue of the journal, described a prospective study in a chronic pain/disability population that assessed self-reported changes in the Oswestry Disability Index and in the mental component summary and the physical component summary of the Short Form-36 (SF-36) relative to work retention one year after an intensive interdisciplinary functional restoration rehabilitation program. After assessing these outcome measures in 2,024 patients, the investigators did not find any statistically significant predictors of work retention status among these self-reported measures.

HODGE RECEIVES AWARD FOR PRESENTATION

Lisa M. Hodge, PhD, the ORC's Osteopathic Heritage basic science research chair, received the first place oral presentation award for her presentation titled, "Lymphatic Pump Treatment Enhances Anti-tumor Immunity and Reduces Solid Tumor Formation in the Lungs of Rats with Pulmonary Tumors," at the International Congress of Osteopathic Medicine held in Florence, Italy, April 6-9, 2011.

BOOK BASED ON CONFERENCE AVAILABLE

Hollis H. King, DO, PhD, director of the family medicine residency program at the University of Wisconsin Medical School in Madison, and the former associate executive director of the ORC, led the development of the book, *The Science and Clinical Application of Manual Therapy*, which was published by Elsevier in September 2010. The book was based on the "Somato-Visceral Interactions and Autonomic Mechanisms of Manual Therapy" international research conference held in Fort Worth, March 31-April 1, 2008. The conference was hosted by the ORC. The book is available through major book retailers.

LICCIARDONE SPEAKS AT AACOM MEETING

John C. Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center, made two presentations at the American Association of Colleges of Osteopathic Medicine/Association of Osteopathic Directors and Medical Educators meeting, which was held April 13-16, 2011, in Baltimore, MD. During his first presentation titled, "Osteopathic Medicine and Primary Care: Emerging Opportunities with Health Care Reform," Dr. Licciardone shared results of an in-depth analysis he conducted using the National Ambulatory Medical Care Survey (2002-2006) to assess the characteristics of osteopathic primary care. In addition to reviewing the data on osteopathic practice patterns including patient sociodemographic and geographic characteristics, Dr. Licciardone also discussed evidence-based recommendations for optimal integration of osteopathic physicians within the emerging health care reform environment. A manuscript describing this data in more detail is currently under review for publication.

Dr. Licciardone's second presentation at the conference focused on challenges in publishing osteopathic research in high impact journals.

ORC leaders also spoke at the 2010 AACOM Annual Meeting in Bethesda, Md. Dr. Licciardone and Cathleen Kearns, administrative director of the ORC, outlined a new pathway for training clinician



researchers through the Consortium for Collaborative Osteopathic Research Development: A Practice-Based Research Network (CONCORD-PBRN).

THANK YOU TO DRS. KING AND WARD

The ORC would like to extend its heartfelt thanks to Hollis H. King, DO, PhD, FAAO, and Robert C. Ward, DO, FAAO, for their generous financial support of the ORC's research mission.

HODGE APPOINTED TO AAO COMMITTEE

Lisa Hodge, PhD, The Osteopathic Research Center's (ORC) Osteopathic Heritage basic science research chair, has been appointed to the American Academy of Osteopathy's Louisa Burns Osteopathic Research Committee.

LICCIARDONE HIGHLIGHTS PUBLISHING TRENDS

John C. Licciardone, DO, MS, MBA, spoke at the

"New Trends in Scholarly Communication: Maximizing Author Impact" symposium, which was held in Fort Worth, Texas, in 2010. Licciardone's presentation focused on "A Case Study of Osteopathic Medicine's Catch-22." The symposium was sponsored by the University of North Texas Health Science Center's Gibson D. Lewis Library, and featured experts in medical publishing from across the country.

ORC REPRESENTED AT OMED CONFERENCE

ORC leaders presented information about the Center's research portfolio at their exhibit during the American Osteopathic Association Osteopathic Medical Conference and Exposition (OMED) in San Francisco, Calif. During the conference, John C. Licciardone, DO, MS, MBA, and Cathleen Kearns also participated in the Osteopathic Heritage Foundation Conclave, with the other researchers who are funded by OHF.

See News Briefs, Page 30

**Support uniquely osteopathic research
with a tax-deductable donation to**

The Osteopathic Research Center

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 contributions to The Osteopathic Research Center, UNTHSC, 3500 Camp Bowie Boulevard, Fourth Floor, Center for BioHealth, Fort Worth, TX 76107. Attn: Cathleen Kearns.



ORC LEADERS COMMENT ON NCCAM STRATEGIC PLAN

In August 2010, ORC leaders issued a position paper on the National Institutes of Health-National Center for Complementary and Alternative Medicine's (NIH-NCCAM) Draft Strategic Plan. The position paper, drafted by John C. Licciardone, DO, MS, MBA, highlighted data from previous ORC analyses of the National Ambulatory Medical Care Survey (NAMCS) relative to distinctive practice patterns of osteopathic primary care physicians, particularly relevant to low back pain. He also discussed the return on investment for NCCAM grants awarded to the ORC. The ORC's comments and a response from Josephine Briggs, MD, director of NCCAM, are posted on the ORC website at <http://www.hsc.unt.edu/orc/news.html>.

ORC DEVELOPS VIDEO ON 2010 ACCOMPLISHMENTS

A video highlighting ORC accomplishments during 2010 made its debut at the ORC booth during the AOA Osteopathic Medical Conference and Exposition that was held in San Francisco October 24-28, 2010. The video may be viewed from the ORC website at <http://www.hsc.unt.edu/orc/news.html>.

Pictured from left: Karan Singh, PhD, the ORC's director of biostatistics, Sejong Bae, PhD, associate professor of biostatistics, and John C. Licciardone, DO, MS, MBA, discuss an ORC research project. Photo by Jeremy Enlow.

Mark Your Calendars for
***Using Manual and Conventional Therapies
to Enhance Musculoskeletal Health***

April 27-29, 2012

Hilton Hotel, Fort Worth, Texas



Conference Highlights Include:

Presentation of the Inaugural Murray Goldstein, DO Lecture

**Keynote Address by Josephine P. Briggs, MD, Director,
National Center for Complementary and Alternative Medicine
National Institutes of Health**

**Results from the OSTEOPATHIC Trial, a 455-subject, randomized, controlled trial of
manipulation for chronic low back pain**

**Sponsored by The Osteopathic Research Center, in part through a grant from the
Osteopathic Heritage Foundation, and by the University of North Texas Health Science Center -
Texas College of Osteopathic Medicine**

**For updated conference information, please visit us at
<http://www.hsc.unt.edu/orc/>**



*The Osteopathic Research Center
3500 Camp Bowie Boulevard, CBH-413
Fort Worth, TX 76107-2699*