

From the Executive Director

Dear Friends,

Greetings from The Osteopathic Research Center! It has been a busy few months for the ORC.

Our most exciting news is that we have received financial support from the University of North Texas Health Science Center and renewal funding from the Osteopathic Heritage Foundation for the next four years.



Licciardone

These commitments mean that the ORC can continue its work to build the evidence base for osteopathic manipulative medicine through the large clinical trials that we conduct and through the mechanism of action studies that are under way to the benefit of the entire osteopathic profession. This funding also allows us to expand our health services and policy division, which will use a wide range of tools to explore the distinctive aspects of osteopathic medical practice.

We believe that these areas of research are critical to a vibrant osteopathic profession, and we are very pleased that administrators of the University of North Texas Health Science Center, the Health Institutes of Texas, the Texas College of Osteopathic Medicine and the Osteopathic Heritage Foundation have recognized the value and made this very tangible commitment to our work.

You will be able to read more about this funding in this newsletter and in upcoming newsletters.

I am also pleased to report that data from a pilot study on the use of osteopathic manipulative treatment in the third trimester of pregnancy have been published by the *American Journal of Obstetrics and Gynecology*. For more information about this publication, please see page 4.

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UNTHSC and OHF Provide Renewal Funding for ORC

The University of North Texas Health Science Center (UNTHSC) and the Osteopathic Heritage Foundation (OHF) have committed to four years of renewal funding for The Osteopathic Research Center (ORC).

Funding from the university was committed by the Health Institutes of Texas (HIT) and the Texas College of Osteopathic Medicine (TCOM), which each contributed \$125,000 annually for fiscal years 2009-2010 and 2010-2011, with a commitment to continue funding at this level for the 2011-2012 and 2012-2013 fiscal years.

"It is our pleasure to support the important research being conducted by the ORC on behalf of the osteopathic profession," said Thomas Yorio, PhD, the provost and executive vice president of academic affairs for UNTHSC. "We are committed to the strength of TCOM and to helping build the evidence base that will be an integral part of how our osteopathic medical students practice in the future."

The Osteopathic Heritage Foundation provided a 2:1 match based on the university's contribution for the next four years up to a maximum of \$2 million.

"OHF has been very proud of and pleased with its association with the ORC," said Richard Vincent, president and CEO of OHF. "We see the research being conducted at the ORC as a cornerstone in the future of osteopathic medicine, and it is our privilege to be able to support the high-caliber research being conducted by John (Licciardone) and the faculty and staff at the ORC."

"We are grateful for the support of the university and of the continued support and generosity of OHF," said John C. Licciardone, DO, MS, MBA, executive director and Osteopathic Heritage Clinical Research Chair for the ORC. "Their support advances our efforts to develop the evidence base for the distinctive aspects of osteopathic medical practice."

More information about this funding will be featured in future editions of the ORC's newsletter.

ORC to Co-Host AOA Research Conference

The Osteopathic Research Center and Steven Berley, DO, a family medicine physician from Lindenhurst, NY, 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, and Dr. Berley submitted the application to the AOA last fall to lead a conference focused on genomics in osteopathic clinical practice and research.

Martha Felini, PhD, MPH, assistant professor of epidemiology in the School of Public Health at the University of North Texas Health Science Center in Fort Worth, has also been instrumental in helping plan this conference.

In addition to Drs. Berley, Licciardone and Felini, this conference will include many national level speakers such as:

- W. Gregory Feero, MD, PhD, special advisor to the director of genomic healthcare at the National Human Genome Research Institute at the National Institutes of Health. Dr. Feero will deliver the keynote address for the research conference;
- Raoul Tibes, MD, PhD, director of the hematological malignancies program at the Translational Genomics Research Institute in Scottsdale, Ariz.;
- David Dooling, PhD, assistant director of the Genome Center, who oversees the Information Systems and Medical Genomics groups at the Washington University School of Medicine;
- Judith Benkendorf, MS, CGC, special assistant to the director of the American College of Medical Genetics;
- Jim Chinitz, BS, chief executive officer of Population Diagnostics, Inc.;
- Michael Christman, PhD, president and CEO of the Coriell Institute for Medical Research;
- George Grills, PhD, director of operations and core facilities and director of advanced technology assessment for the life sciences core laboratory facilities at Cornell University;
- Stuart Scott, PhD, assistant professor in the pharmacogenetics program at Mount Sinai School of Medicine;
- Roy Martin, DMin, assistant professor of clinical ethics, Texas College of Osteopathic Medicine, University of North Texas Health Science Center;
- Shannon Kiernan, MS, CGC, genetic counselor at Navigenics;
- David Tegay, DO, assistant professor of medicine and medical genetics at the New

York College of Osteopathic Medicine; and

- Michael Terzella, DO, assistant professor of osteopathic manipulative medicine at the New York College of Osteopathic Medicine.

“This conference will contain significant material on genomics for the practicing osteopathic physician and osteopathic clinical researcher,” said Dr. Berley. “Because this conference is designed to impart foundational knowledge in this area that is frequently not addressed at this level in the medical school curriculum, it is appropriate for physicians, medical students, educators and basic scientists.”

The agenda is included on Page 3 of this newsletter. **Please note that the start time on Monday is different than the schedule included in the AOA Convention program book.** We look forward to seeing you at the conference.



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2009 AOA Research Conference Program

The Translation of Genomic Science into Osteopathic Clinical Practice and Research

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

- 8:00 a.m. - 8:15 a.m. **Introductory remarks**
Steven Berley, DO
Doctors' Care
- John C. Licciardone, DO, MS, MBA*
The Osteopathic Research Center
- 8:15 a.m. - 9:00 a.m. **Research Conference Keynote Address:**
From genetics to genomics
W. Gregory Feero, MD, PhD
National Human Genome Research Institute
- 9:00 a.m. - 9:45 a.m. **The current state of next generation DNA sequencing technologies**
George Grills, PhD
Cornell University
- 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. **Osteopathic principles applied in the genomic era**
Michael Terzella, DO
New York College of Osteopathic Medicine
- 11:00 a.m. - 11:45 a.m. **Bioinformatics**
David Dooling, PhD
Washington University School of Medicine
- 11:45 a.m. - 12:00 p.m. **Q & A**

Monday, November 2, 2009 *Translational Genomics*

- 8:00 a.m. - 10:00 a.m. **Convention-wide Keynote Address**
- 10:30 a.m. - 11:10 a.m. **The Coriell personalized medicine collaborative: examining the utility of genome-informed medicine**
Michael Christman, PhD
Coriell Institute for Medical Research
- 11:10 a.m. - 11:50 a.m. **Copy number variation (CNV) analysis and causative mutations**
Jim Chinitz, BS
Population Diagnostics, Inc.
- 11:50 a.m. - 12:30 p.m. **Direct-to-consumer genomic medical services**
Shannon Kieran, MS, CGC
Navigenics

12:30 p.m. - 1:00 p.m. **Q & A**

1:15 p.m. - 2:30 p.m. **COM Alumni Luncheons**

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**
Steven Berley, DO
Doctors' Care
- 8:30 a.m. - 9:00 a.m. **Genomic factors as predictors of response to osteopathic manipulative treatment among low back pain patients**
John C. Licciardone, DO, MS, MBA
The Osteopathic Research Center
- 9:00 a.m. - 9:40 a.m. **Oncogenomics in clinical practice**
Raoul Tibes, MD, PhD
The Translational Genomics Research Institute
- 9:40 a.m. - 10:20 a.m. **Pharmacogenomics and the promise of personalized medicine**
Stuart Scott, PhD
Mount Sinai School of Medicine
- 10:20 a.m. - 10:30 a.m. **Break**
- 10:30 a.m. - 11:10 a.m. **Clinical neurogenomics**
David Tegay, DO
New York College of Osteopathic Medicine
- 11:10 a.m. - 11:40 a.m. **The role of the genetic counselor**
Judith Benkendorf, MS, CGC
American College of Medical Genetics
- 11:40 a.m. - 12:10 p.m. **Public health issues in genomic medicine**
Martha Felini, PhD, MPH
University of North Texas Health Science Center
- 12:10 p.m. - 12:50 p.m. **Social and ethical issues pertaining to genomic medicine**
Roy Martin, DMin
University of North Texas Health Science Center
- 12:50 p.m. - 1:00 p.m. **Wrap-up**

To learn more about the conference, or to register for this conference, please visit the AOA website at http://www.do-online.org/index.cfm?PageID=res_conf. Information is also available on the ORC website at <http://www.hsc.unt.edu/ORC>.

Study Published in *AJOG* Reports Osteopathic Manipulative Treatment Improves Back-Specific Functioning in Late Pregnancy

A study published by the *American Journal of Obstetrics and Gynecology* demonstrates that osteopathic manipulative treatment slows or halts the deterioration of back-specific function in the third trimester of pregnancy.

The Phase II randomized clinical trial of 144 subjects showed that women in the usual obstetric care+osteopathic manipulative treatment group reported less deterioration of back-specific function 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 John Licciardone, DO, MS, MBA, the principal investigator for the project, and the executive director of The Osteopathic Research Center. “Because pregnant women are limited in the medications they can take for pain, osteopathic manipulative treatment offers a way to improve back function and decrease pain in the third trimester of pregnancy, when a majority of women experience these symptoms.”

“What is also interesting about this study is that osteopathic physicians (D.O.s) who provide obstetrical 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 function 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 function 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.”

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

DIRECTOR ————— *Continued from Page 1* —————

As October winds down, our thoughts turn to traveling to New Orleans for the 114th Annual Osteopathic Medical Conference and Exposition, where the ORC will be co-hosting the research conference. We are excited about the excellent quality of the speakers lined up for this conference, and we hope that many of you will be able to join us.

Finally, if you are going to the AOA Convention, please visit our booth to say hello and pick up a copy of our 2008-2009 Report. We enjoy being able to talk with people in person to get their input about the various research projects under way at the ORC. Your input is important to us as we advance our research agenda on behalf of the osteopathic profession. We look forward to seeing you in New Orleans.

News Briefs

Since the last issue of the ORC newsletter, several other articles have been published related to ORC research.

In July, John C. Licciardone, DO, MS, MBA, published an editorial in *Osteopathic Medicine and Primary Care* titled, Time for the Osteopathic Profession to Take the Lead in Musculoskeletal Research. The article is available online at <http://www.om-pc.com>.

In September, former ORC associate executive director Hollis King, DO, PhD, teamed up with W. Thomas Crow, DO, Rita Patterson, PhD, and Vincent Guiliano, MD, to publish an article in *Osteopathic Medicine and Primary Care* titled, Assessment of Calvarial Structure Motion by MRI. Full text of this article is also available online through the OMPC site.