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How Can We Keep Research Growing at Colleges of Osteopathic Medicine?

Michael B. Clearfield, DO; Peggy Smith-Barbaro, PhD; V. James Guillory, DO, MPH; Thomas A. Cavalieri, DO; and Marc B. Hahn, DO

Research is not a luxury for this profession: it is a practical necessity.

Norman Gevitz, PhD1

n this edition of JAOA—The Journal of the American Osteopathic Association, we have reevaluated research funding data reported to the American Association of Colleges of Osteopathic Medicine (AACOM) from each college of osteopathic medicine (COM) between 1989 and 2004.2 As noted,2 during 2004, osteopathic physicianresearchers on staff at COMs received 12.4% of the total research funding provided to the COMs—a decrease from 16.6% in 1999. Although there was a decrease in the percentage of funding for osteopathic physician-researchers between 1999 and 2004, there was an increase of 60% in the total number of

From the Touro University College of Osteopathic Medicine–California (Dr Clearfield) in Vallejo; University of North Texas Health Science Center—Texas College of Osteopathic Medicine (UNTHSC/TCOM) (Drs Smith-Barbaro and Hahn) in Fort Worth; Kansas City (Mo) University of Medicine and Biosciences College of Osteopathic Medicine (Dr Guillory); and the University of Medicine and Dentistry of New Jersey-School of Osteopathic Medicine (Dr Cavalieri) in Stratford.

Drs Clearfield and Cavalieri are members of the JAOA's Editorial Advisory Board. Dr Guillory is the chairman of the External Advisory Committee for the Osteopathic Research Center, which resides at UNTHSC/TCOM. In addition, Dr Clearfield previously served as associate dean of clinical research at UNTHSC/TCOM and had a supervisory role with the Osteopathic Research Center. Dr Hahn is currently dean of UNTHSC/TCOM.

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research grants awarded to these osteopathic physicians (DOs).^{2,3} Further, the total dollar amount awarded to DOs tripled, with the average dollar amount per award increasing by 80% during this time.^{2,3}

These increases in funding are consistent with the NIH (National Institutes of Health) Roadmap for Medical Research,4 which is designed to reshape clinical research for the 21st century. It should be noted, however, that the combined total monetary amount awarded to all osteopathic physicianresearchers at COMs from all funding sources in 2004 was \$12.6 million.2 Although this amount is impressive, one might pause momentarily on learning that principal investigators at COMs with PhD degrees were awarded a total of \$84 million in research grants and research contracts.2

Historically, many COMs have received much of their funding from federal sources, such as the Health Resources and Services Administration.² Such funds—though not specifically earmarked as research dollars—have supported some research infrastructure needs.^{2,3} Many of these funds, however, may be redirected toward allied health fields in the future. Given increased competition from other government priorities,⁵ the maintenance of current funding levels for osteopathic medical research may be in jeopardy.

Although the osteopathic medical profession has seen improvements in its share of NIH funding,² combined NIH funding to all COMs in 2004 ranked 163rd among funding totals provided by the NIH to the top 500 research institutions.⁶ To assume that future NIH funding will increase for the majority of COMs is unrealistic when one con-

siders the small faculty size at most of our schools.²

As a profession, where do we go from here?

Norman Gevitz, PhD,¹ in his March 2001 *JAOA* article, addressed many topics related to research within the osteopathic medical profession. His comments¹ included a recommendation that members of our profession hold a series of meetings to examine how best to accomplish the following four goals:

- □ integrate a research mission into existing COM educational programs
- □ institute a Clinical Research Certificate Program to educate and train new researchers
- □ institutionalize research more fully into the overall mission of COMs
- require every COM to identify and enhance support to at least one specific area of medical research

Dr Gevitz¹ also proposed that the most important research task for the osteopathic medical profession is to clarify in which areas—and to what extent—osteopathic medicine's distinctive approach to healthcare has value.

In 2003, a subcommittee of the Osteopathic Research Task Force (Figure) published a white paper titled Osteopathic Manipulative Medicine Research: A 21st Century Vision.⁷ The subcommittee concluded that the evidence base for osteopathic manipulative medicine (OMM) needs to be expanded exponentially. They noted that this evidence is key for education, clinical care, health policy, and reimbursement, as well as for demonstrating the unique value of osteopathic medicine to the public.⁷

If one closely examines the growth in osteopathic medical research during the

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past decade, it appears that many of the recommendations made by Dr Gevitz1 in 2001 are just as pertinent today as they were 6 years ago. The value of the profession's investment in the Osteopathic Research Center (ORC), which resides at the University of North Texas Health Science Center-Texas College of Osteopathic Medicine (UNTHSC/TCOM) in Fort Worth, has shown, in only 4 years, an eightfold increase over the initial financial commitment.5 Moreover, the impact on our profession from the ORC reaches far beyond the research funds generated. The many indirect benefits accrued by the osteopathic medical profession from the ORC include increased scholarly activity,8 increased research grants to develop research programs and train researchers, improved research infrastructure, improved ability to coordinate large multicenter trials of the efficacy of OMT, and national recognition from the NIH.5,9 When one considers that the ORC is operated by a mere handful of dedicated individuals, these results are astonishing.

The use of OMM, from both basic and clinical science perspectives, is the most unique aspect of the osteopathic medical profession and, as suggested by Dr Gevitz and others, 1,10 it requires appropriate verification under strict scientific rigor. In an editorial in the March 2006 issue of the *JAOA*, Dr Gevitz 10 further articulated the need for osteopathic principles and practice to return to the center of our profession's education and research activities. He argued that this reengagement would enhance the reputation and visibility of the osteopathic medical profession.

To that end, we urge the American Osteopathic Association (AOA), the American Osteopathic Foundation (AOF), and AACOM to fund additional, regionally based osteopathic research centers.

If feasible, such centers, located throughout the United States, would be funded at even greater levels than the ORC. We suggest that each new center be associated with a COM, as the ORC is with UNTHSC/TCOM. Each center

- American Academy of Osteopathy
- American Association of Colleges of Osteopathic Medicine
- American College of Osteopathic Family Physicians
- American Osteopathic Association
- American Osteopathic Hospital Association
- Association of Osteopathic Directors and Medical Educators
- Council of Osteopathic Student Government Presidents
- International Federation of Manual/Musculoskeletal Medicine
- National Undergraduate Fellows Association
- Osteopathic Research Center
- Postgraduate American Academy of Osteopathy
- Student Osteopathic Medical Association

Figure. Organizations that contributed to in the creation of the white paper Osteopathic Manipulative Medicine Research: A 21st Century Vision.7 Also participating were representatives from A.T. Still University-Kirksville (Mo) College of Osteopathic Medicine and Philadelphia (Pa) College of Osteopathic Medicine. The group was formed in September 2003 as a subcommittee of the Osteopathic Research Task Force. They concluded that the evidence base for osteopathic manipulative medicine needs to be expanded exponentially, noting that this evidence is key for education, clinical care, health policy, and reimbursement, as well as for demonstrating the unique value of osteopathic medicine to the public.7 The paper is available at http://www.aacom.org Iom/research/researchsynergy.html.

should likewise have the opportunity to receive two 4-year grants to support developing research infrastructure. The ability of each self-nominated COM to provide in-kind funding would be considered in the selection process for proposed research centers, allowing for augmentation of the baseline funding received by the AOA, AOF, and AACOM. Each new osteopathic research center would also be encouraged to focus on a different aspect of OMM-related research. Ideally, during the next 20 years, there would be at least four or five regional research centers, each producing research distinctive to the osteopathic medical profession.

Just as the Osteopathic Postdoctoral Training Institution (OPTI) system has enhanced the postgraduate programs of the osteopathic medical profession, a regional osteopathic research center program could do the same for the profession's research efforts. Such a program would allow funding from federal agencies, foundations, and other sources to be focused into areas where our profession can make a unique contribution to patients and medical knowledge. The smaller COMs, which have the most limited resources, would be able to collaborate with their respective regional osteopathic research center to obtain research support services, educational expertise, and even infrastructure support. Because each regional center would have a different focus but a similar mission (ie, to increase distinctive research for the osteopathic medical profession), the ability to collaborate in larger national, multisite studies would be a natural offshoot of this program, resulting in stronger, regionally based networks of osteopathic medical researchers. Such a system is also likely to attract new students to the profession, providing them with clear avenues to pursue their medical and research interests.

The regional osteopathic research centers could function either collectively or individually as sources for the Clinical Research Certificate Program proposed by Dr Gevitz¹—or perhaps a single center could devote itself to this particular focus. In addition, ground-breaking original osteopathic medical research conducted at the regional cen-

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ters would have beneficial impacts on public health and government policies as well as open potential funding sources from regional philanthropic donors and foundations.

For the osteopathic medical profession to increase its prestige and value to society, we need to focus on things that we do differently and better than the allopathic medical profession. A renewed focus on distinctive osteopathic principles and practice would certainly not preclude our contribution to scientific endeavors outside the realm of OMM, but it would help channel the bulk of our resources to studies that make our profession unique. As Dr Gevitz¹ noted, for the osteopathic medical profession to continue to evolve as a leader in healthcare—specifically by having a positive impact on the health and wellness of the US public—research both specific to our profession's basic tenets and to more general uses can no longer be considered a luxury. Instead, it is a practical necessity.

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JAOA now requires public registration of clinical trials

As of September 1, 2006, phase 3 clinical trials to be considered for publication in *JAOA—The Journal* of the American Osteopathic Association must be registered with at least one public registry. This requirement also applies to other trials involving human subjects, including pilot studies, if they have at least one prospectively assigned concurrent control or comparison group.

For more information, please see the "Manuscript Preparation" section of the JAOA's "Information for Contributors," which is posted on the JAOA's Web site at http://www.jaoa.org/misc/ifora.shtml.