

New report describes types of research conducted at academic medical centers

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A study from the Massachusetts General Hospital (MGH) Institute for Health Policy gives the first detailed look at the types of research currently being conducted within U.S. academic medical centers - medical schools and their affiliated hospitals. The report in the Sept. 2 *Journal of the American Medical Association* describes how the traditional way of categorizing life-science researchers as either basic or applied clinical investigators does not adequately reflect the reality of today's academic medical research.

"Our study is the first such census of researchers at academic health centers and provides a strong baseline for future evaluation of the U.S. academic research enterprise," says lead author Darren Zinner, PhD, who is now at the Schneider Institutes for Health Policy in the Heller School for Social Policy and Management at Brandeis University.

"Studying how life-science research is conducted may help improve the efficiency of how funding is spent and how quickly successful findings can be put into clinical use."

Senior author Eric G. Campbell, PhD, and colleagues at the MGH Institute for Health Policy have conducted several previous studies of relationships between academic life science researchers and industrial entities. In light of the current environment of limited public funds to support research, the authors designed this study to gather accurate information on the current state of the research enterprise and provide a foundation for establishing policies and priorities to guide future funding decisions.

Surveys were sent to more than 3,000 investigators randomly selected from life science departments at the top 50 academic medical centers receiving National Institutes of Health (NIH) funding in 2004. Along with questions about their publications, professional activities and the size of their research budgets, respondents were asked to describe the stage of their current research. Responses were combined in order to group researchers by type - including basic science, translational, clinical trials, and health services/clinical epidemiology studies.

Most respondents reported focusing on one type of research, with 34 percent doing only basic research; 9 percent translational research - studies designed to turn laboratory findings into new drugs, devices or procedures - 7 percent phase II or III clinical trials, and 9 percent clinical epidemiology or health services studies. About 12 percent reported conducting other types of clinical research, which includes nutrition, quality improvement and information technology studies. The authors note that the number of investigators simultaneously conducting several types of studies - 30 percent of respondents - indicates that the traditional dichotomy between basic and applied research is too simplistic. While a quarter of respondents indicated they conduct research without receiving support as principal investigators, this proportion is even higher among physician-researchers and those in non-laboratory settings.

Campbell explains, "Although many of the unfunded researchers are likely to be junior faculty members, those conducting health services research and 'other clinical research' - which includes nutrition, quality improvement and information technology studies - were more likely than lab-based researchers to be unfunded. In general, respondents with an MD degree only were most likely to be unfunded and to devote most of their time to clinical care. These investigators could be clinically focused physicians who feel they need to do research to stay at academically oriented institutions, or they could have a true passion for research but

have trouble getting funding."

The authors also note that the data suggest the strong role public policy can play in shaping the research enterprise. One notable finding was that faculty conducting translational research - which has been termed the "valley of death" because of the belief that such studies are too advanced for NIH funding but not far along enough to interest industrial supporters - were well funded and published a significant number of scientific papers, the standard measure of research productivity.

"The robustness of transitional research may reflect the recent emphasis the NIH has placed on such studies through its Roadmap for Medical Research and Clinical and Translational Science Award initiatives," says Zinner. "We also seem to be entering a new phase of federal investment into comparative effectiveness research - investigations of treatments and technologies known to have some level of effectiveness in practice - which is at the opposite end of the research spectrum from basic research."

"It is unclear whether the current levels of health services and clinical epidemiology research are sufficient, especially when half of this group is unfunded," he adds. "Eventually we're going to need to figure out if the current mix of academic research is the correct one and, if not, how we should shape the system to reach the goals we all desire - new drugs, devices and approaches to the diagnosis, treatment and prevention of disease."

Source: Massachusetts General Hospital

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