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The United States' Research Enterprise

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he research enterprise in the United States has been discussed previously in these pages, and points have been made regarding the economic impact for the state of Wisconsin. To recap, each dollar awarded to our academic institutions in Wisconsin by the National Institutes of Health (NIH) generates approximately \$2.21 in new state business activity, and each new research grant results in 7 new jobs.1

The Medical College of Wisconsin (MCW), with its emphasis as a research-intensive medical school, has built a top-100 research enterprise.² Our faculty and staff work extremely hard to generate NIH funding as well as peerreviewed research funding from other federal, foundation, and philanthropic sources.

Several recent developments in Washington, DC, require further commentary on this topic to ensure that all who care about the health of Wisconsin and the nation are provided additional data. One "solution" to decrease federal expenditures was to reduce the amount of money that could be paid to scientists from federal government awards. A second "solution" suggested that reducing funding received by institutions to support facilities and administration (F&A) costs associated with research grants would result in either a decrease in

Joseph E. Kerschner, MD, is Dean, School of Medicine, and Provost and Executive Vice President, Medical College of Wisconsin, Milwaukee, Wis. federal expenditures or an increased amount of funding for "actual" research rather than funding the F&A.

It is important that all understand that each of these ideas will have only one effect on the research enterprise: reducing the ability

elite group of academicians engaged in finding solutions to the world's health problems.

The market for a PhD or MD scientist conducting this work is further influenced by economic opportunities in other sectors of the economy. Also, it is not possible for the medi-

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to conduct research – not only in Wisconsin (especially research providing health solutions for the future, conducted at the state's two medical schools), but across the country. Each of these "solutions" will translate into fewer scientists conducting research in Wisconsin, and, ultimately, fewer cures for our citizens and diminished economic impact for the state as noted above.

Regarding the limitation of salary for those conducting research supported by federal grants, although scientists at our research universities are well-compensated, many have dedicated decades of their lives (after their university education), in much lower-paying positions, to obtaining the skills needed to bring new knowledge forward in the biomedical sciences. This country is fortunate to have this

cal schools (where most of these researchers are concentrated) to simply "make up the difference" in the dollars needed to compensate talented researchers, compared to what would be allowed by the suggested new federal guidelines. Our medical schools already provide substantial cross-subsidy for each dollar received from the federal government to allow for this life-saving research. A recent study by the Association of American Medical Colleges noted that approximately 53 cents was needed for each dollar received from the NIH from universities to allow successful completion of the planned research. With other pressures (including decreasing clinical revenues and increased costs to provide outstanding medical education), there is no additional revenue stream to supplement this envisioned decrease in federal salary support.3 The result simply would be that most institutions would need to downsize their respective research enterprises to reduce the needed additional cross-subsidization.

The proposal to limit F&A is equally misguided, as it presumes that the dollars awarded to institutions for facilities and administration of research are simply "extra" dollars that institutions have to build new buildings or support administrative staff engaged in efforts other than research. The reality is completely the opposite. The F&A received by research institutions does not nearly cover the costs of maintaining a competitive research program. The reason for the need to supply an additional 53 cents on every dollar received is largely related to the fact that this F&A is inadequate, and research institutions are using other operating funds to sustain the buildings, equipment and administrative support needed to ensure that research is conducted in an ethical fashion (when it involves human subjects) and a humane fashion (when it involves animals and to maintain the required regulatory conditions). Similar to the discussion above related to salary, should the federal government seek to decrease the F&A awarded to research institutions, it would result in a reduction in our overall ability to conduct research as well as a shrinking of research abilities across the United States. Again, there is no other solution to replace these funds at most institutions.

Research institutions in the United States must continue to look at their responsibility to provide solutions to the cost of research and most institutions are taking this seriously. At MCW, we have met with our legislative officials to look at ways to streamline regulations to enhance research efficiency. Institutions also need to collaborate with each other regarding ways to share expensive equipment and space. One such solution in Wisconsin has been the recent creation of a joint department of biomedical engineering between MCW and Marguette University, designed specifically with the issues of cost and shared resources in mind. Institutions increasingly are sharing resources and conducting research across multiple organizations to address these same issues, and MCW has relationships with many schools of medicine and universities - including the University of Wisconsin School of Medicine and Public Health – to accomplish these goals.

We at MCW look forward to an ongoing dialogue regarding managing the country's research portfolio in a responsible manner, and are delighted that both houses of Congress recently passed legislation demonstrating their understanding that the proposed "solutions" noted above would not result in solutions, but rather a reduction in our country's world-leading research enterprise.

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