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NIH budgets, patient care, and health

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Throughout the era of modern medicine, there has been a strong relationship between research and our evolving capacity to advance the health of the public. In the 1950s, for example, advancements in the fields of virology, immunology, and public health brought an end to the devastating scourge of polio. More recently, we were able to convert HIV/AIDS from a mysterious “death warrant” into a manageable (and even preventable) chronic disease in this country. This would not have been possible without our prior and ongoing investment in basic, clinical and translational research.

Who knows when the next pandemic threat will arrive, where it will come from, or what it will look like? Whether it is a new variant of an avian influenza virus or some unspeakable act of bioterrorism, the more experience we have in translating basic discovery into clinical- and population-based interventions, the better prepared we will be to tackle the newest health challenge.

From this perspective, every citizen should be extremely concerned about the insidious process that is attacking the very base of our research infrastructure: the deterioration of the National Institutes of Health budget. After a carefully planned and well executed period of growth in the NIH budget, 5 years ago this growth hit a brick

wall when NIH was subjected to flat funding in all subsequent years. This means that over time, we have witnessed very serious erosion in the “purchasing power” of the NIH budget, due to substantial inflation in the costs of biomedical research. According to data from the American Association of Medical Colleges, we have lost more than \$3.6 billion in real purchasing power for our country’s NIH-supported research infrastructure.

Many of our patients do not understand that the vast majority of the NIH budget does not stay within the federal intramural research program in Bethesda. Most of it is distributed through the competitive peer-review process to investigators at leading research institutions throughout the country, including the Medical College of Wisconsin and the UW School of Medicine and Public Health. The faculty at both schools have been quite successful in competing for NIH research support, but as the NIH budget shrinks, the competition becomes unbearably intense. The overall success rate for first submissions has plummeted from 29% in 1999 to only 12% in 2007. We are at risk of losing the next generation of scientists, our “seed corn” for future crops of biomedical breakthrough discoveries.

The timing of this erosion of the NIH budget is ironic. Following

the recent successful completion of the Human Genome Project, we are losing our capacity to take full advantage of the insights gained from that enormous effort. In the past decade, we have learned so much about the molecular basis of disease, and have begun to dramatically increase our capacity to translate this knowledge into clinical- and population-based interventions. There is a new emphasis on community-based translational research and effectiveness research, which builds connections between the “ivory tower” of universities and the “real world” of community-based clinical practice. Last year, for example, our school received a new NIH “Clinical and Translational Science Award,” designed to support translational research in clinical practices and communities throughout the state. The decline in the purchasing power of the NIH budget means that our new pipelines for community-based translational research will run dry just as their construction nears completion. This will hamper our efforts to improve everyday clinical practice and health outcomes through the application of evidence-based medicine.

All of the hard work and investment of the past decade is at risk due to short-sighted budgetary decisions in Washington. The situation reminds me of the old joke about the fellow who set out to swim across the English Channel.

He got half way across and decided it would be too tough to finish, so he turned around and swam back. We must not turn back and relinquish the very real progress we have made in tackling the major illnesses that threaten the lives and well being of our patients.

Every day, whenever we provide care for a patient, we are utilizing the results of our past investments in basic, clinical and translational research. Every day, we are made painfully aware that we still have a long way to go in having access to the best possible tools for the diagnosis, treatment, and prevention of disease. Please join me in educating our patients, our elected representatives, and our neighbors on this important issue. Our patients' lives depend on it.

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