

Collaboration in Diabetes Research Inspires Collaboration in Advocacy



Pat White

President

ACT for NIH: Advancing Cures Today

Collaborations among government, industry, the nonprofit sector and patients are the future of biomedical research, and investment in the National Institutes of Health sits at the center of these partnerships.

Recently I had the opportunity to convene a panel for the Senate National Institutes of Health (NIH) Caucus on promising new developments in treating diabetes. NIH, academic and industry scientists and persons living with diabetes reported on how collaborative research, public-private partnerships and engaged patients are sparking measurable progress against a debilitating disease.

Director of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Griffin Rodgers outlined the magnitude of our challenge: 29 million Americans currently suffer from diabetes, and another 86 million are pre-diabetic and at high risk of developing the disease in the next five years. Aside

from the suffering of persons living with diabetes and their families, there is a financial toll: an individual with diabetes will likely have annual health-care costs that are more than double those of patients who are not so afflicted.

But there is hope.

We learned about the breakthrough Diabetes Prevention Program (DPP) that arose from an NIDDK-funded clinical study. NIDDK's protocol demonstrated that 58 percent of individuals who were at risk of developing diabetes and enrolled in a structured program of coaching, weight loss, dietary changes and exercise saw their risk dramatically reduced. Seeing an opportunity to have a major public health

impact, the YMCA stepped up and launched DPP-style programs across the country, enrolling nearly 50,000 at-risk individuals. DPP is so promising that the Centers for Medicare & Medicaid Services recently announced that Medicare will reimburse millions of at-risk patients for enrolling in DPP-style programs starting in 2018.

Next we heard from a Merck scientist about a partnership among the NIH, academic scientists and several pharmaceutical and biotech

automatically monitors and manages her blood sugar level. She reported being able to sleep through the night without having to repeatedly wake up to run pin-prick blood tests and administer insulin injections. This near-miraculous device is a direct result of NIH-funded research and was approved by the Food and Drug Administration for patient use on Sept. 28, 2016.

This is how biomedical research is done in the 21st century: collaboration among government,

29
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89
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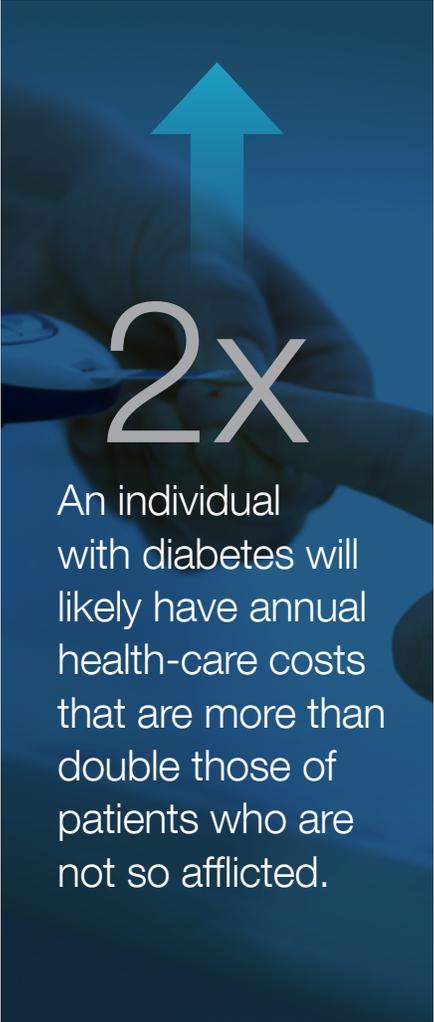
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companies to perform collaborative, pre-clinical research. By amassing genomic data for thousands of persons living with diabetes and sharing it on an open platform, partners can far more quickly identify potentially “druggable” targets within patients’ genomes that all scientists in the consortium might pursue in developing potential therapies.

Finally, a person living with type 1 diabetes recounted how, with the support of her family, she has offered herself for several clinical trials since her diagnosis in 1996. She is currently in a protocol with an experimental, artificial pancreas that

industry, the nonprofit sector and, most importantly, engaged patients.

We live in an era of unprecedented scientific opportunity made possible by the investment of the American people in the NIH. Even as academic and industrial scientists, the NIH and patient advocacy organizations collaborate in new ways to speed cures and therapies getting to patients, new actors are entering the health research arena. Companies such as Verily, Oracle, Apple and IBM are focusing their technologies on new opportunities in ways that promise to transform how patients participate in, and benefit from, medical research.



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At ACT for NIH, we have sought to complement our community’s traditional advocacy by directly engaging Congressional leaders about the importance of sustained investment in NIH. Working together with our fellow advocates, and with inspired leadership from key members of Congress, last year we secured the first major funding increase for NIH in more than a decade. We seek to engage patients, researchers, policymakers and business leaders in new collaborations, following the example of our Senate NIH Caucus panelists.