

The Personalized Medicine for Diabetes Meeting Summary Report

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Abstract

Personalized medicine for diabetes is a potential method to specifically identify people who are at high risk of developing type 2 diabetes based on a combination of personal history, family history, physical examination, circulating biomarkers, and genome. High-risk individuals can then be referred to lifestyle programs for risk reduction and disease prevention. Using a personalized medicine approach, a patient with already-diagnosed type 2 diabetes can be treated individually based on information specific to that individual. The field of personalized medicine for diabetes is rapidly exploding. Diabetes Technology Society convened the Personalized Medicine for Diabetes (PMFD) Meeting March 19–20, 2009 in San Francisco. The meeting was funded through a contract from the US Air Force. Diabetes experts from the military, government, academic, and industry communities participated. The purpose was to reach a consensus about PMFD in type 2 diabetes to (a) establish screening programs, (b) diagnose cases at an early stage, and (c) monitor and treat the disease with specific measures. The group defined what a PMFD program should encompass, what the benefits and drawbacks of such a PMFD program would be, and how to overcome barriers. The group reached six conclusions related to the power of PMFD to improve care of type 2 diabetes by resulting in (1) better prediction, (2) better prophylactic interventions, (3) better treatments, and (4) decreased cardiovascular disease burden. Additional research is needed to demonstrate the benefits of this approach. The US Air Force is well positioned to conduct research and develop clinical programs in PMFD.

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