

'Precision medicine' initiative to analyze over 1 million DNA samples

The United States has proposed analyzing genetic information from more than 1 million American volunteers as part of a new initiative to understand human disease and develop medicines targeted to an individual's genetic make-up.

At the heart of the "precision medicine" initiative, announced on Friday by President Barack Obama, is the creation of a pool of people – healthy and ill, men and women, old and young – who would be studied to learn how genetic variants affect health and disease.

Officials hope genetic data from several hundred thousand participants in ongoing genetic studies would be used and other volunteers recruited to reach the 1 million total.

"Precision medicine gives us one of the greatest opportunities for new medical breakthroughs we've ever seen," Obama said, promising that it would "lay a foundation for a new era of life-saving discoveries."

The near-term goal is to create more and better treatments for cancer, Dr. Francis Collins, director of the National Institutes of Health (NIH), told reporters on a conference call on Thursday. Longer term, he said, the project would provide information on how to individualize treatment for a range of diseases.

The initial focus on cancer, he said, reflects the lethality of the disease and the significant advances against cancer that precision medicine has already made, though more work is needed.

The president proposed \$215 million in his 2016 budget for the initiative. Of that, \$130 million would go to the NIH to fund the research cohort and \$70 million to NIH's National Cancer Institute to intensify efforts to identify molecular drivers of cancer and apply that knowledge to drug development.

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