US government boosts efforts to identify genes linked to diseases

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Federal science officials have announced the launch of a $260 million program to identify rare gene variants that raise or lower people's risk of developing such common conditions as heart disease, stroke, diabetes, and autism — the latest Big Science effort to mine DNA sequences for medical breakthroughs.

Four genome hubs won $40 million to $80 million each, spread over four years, to form the Centers for Common Disease Genomics, the National Institutes of Health said. They are the Broad Institute in Cambridge, Mass.; Washington University in St. Louis; Baylor College of Medicine in Houston; and the New York Genome Center in New York City.

By comparing how genomes in the two groups differ, scientists hope to understand how genomic variants — essentially spelling differences in the DNA — cause or prevent cardiovascular, metabolic, and neuropsychiatric disorders, including asthma, epilepsy, and inflammatory bowel disease.

They hope the project will do much more than add to the growing list of "disease risk genes" that DNA-testing companies sell reports on. That information can be confusing or frustrating, since the elevated risk from any particular gene variant is often tiny, leaving people at sea about how worried they should be that their diabetes risk is, say, 9 percent above average.

Read full, original post: NIH pumps $260m into search for disease genes that matter