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[International Cooperation][Medicine] Multinational Team Makes Breakthrough in Diabetes Research

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CNA - Focus Taiwan (2012/03/28) A team of researchers from Taiwan and other countries has identified five new genetic locations and confirmed three associated with type 2 diabetes in East Asians, providing new perspectives on the cause of the disease, researchers said Wednesday.

The Asia Genetic Epidemiology Network, a consortium of researchers from Taiwan, South Korea, Japan, Singapore, China and the United States, made the discovery after studying the genetic data of over 50,000 people of East Asian ancestry.

Of the eight genetic locations, four were also found to be associated with type 2 diabetes in Caucasians, but with "very few links," said Jer-yuarn WU at the Academia Sinica's Institute of Biomedical Sciences.

He said the consortium was formed with the aim of finding gene expressions that are unique to Asians in the disease, as studies on type 2 diabetes in the past have focused predominantly on gene studies of Caucasians.

Two of the genes identified -- GLIS3 and KCNK16 -- are important in the balance and regulation of blood sugar and insulin levels, according to the Taiwanese researchers on the team.

WU said they contributed to the study by offering an analysis of the genetic data of 2,000 Taiwanese people.

Researchers said the findings, published in the U.S-based scientific journal Nature Genetics in January, could give scientists new leads on drug development that prevent or treat the disease.

In 2011, 366 million people were suffering from diabetes, a number that is expected to rise to 552 million by 2030, said Lee-ming CHUANG, an internal medicine professor at the National Taiwan University Hospital and a member of the team.

So far some 40 genes have been identified linked to type 2 diabetes, said WU.

The five new genes identified by the Asian team are KCNK16, MAEA, GCC1-PAX4, PSMD6 and ZFAND3.

GLIS3 is one of the three type 2 diabetes-related genes that had earlier been found by European and American researchers. The other two are PEPD and FITM2-R3HDML-HNF4A.

Reference:
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